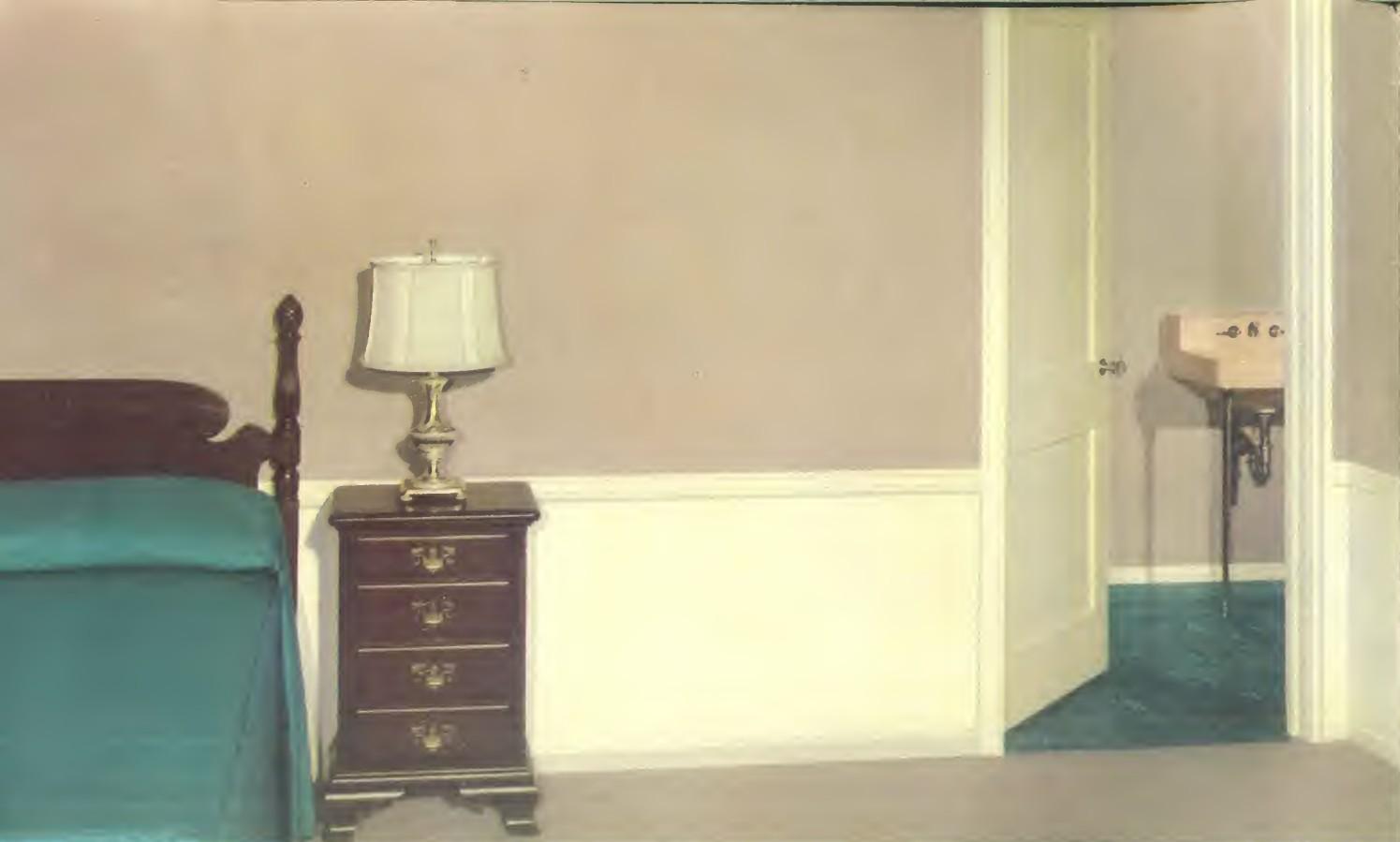




HOW TO PAINT
FOR BEAUTY AND PROTECTION

Montgomery Ward



FOR FINE INTERIORS, FINE WARD PAINTS

No matter what your decorating problem, we are sure you'll find a suitable Ward finish. A score of colors, and hundreds more for the mixing. Flat, soft finishes for living room, bedroom, in choice of Super Oil-Base or Excelon Rubber-Base. Dirt-shedding, easy-to-clean enamels for kitchen, bath, woodwork—Excel-Glo, the Soft-Sheen Luxury Enamel; Porcelain White, the whitest white, that stays white; Super Gloss and Semi-Gloss. And modern Texture paints, too.



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DECIDE WHAT YOU WANT TO ACCOMPLISH

You probably know in a general way what the reasons for painting are. Yet, it is worth while in planning each painting job to consider and even jot down all the things you want to accomplish, as they affect your choice of materials and methods. Consider all of these functions of paint:

PROTECTION. Regular painting prevents wear of surfaces; protects them from weather, moisture, damaging fumes, dirt and insects. Most bare surfaces soon rot or rust.

APPEARANCE. In general paint is applied to beautify. But other appearance effects are also secured. You can make a house contrast or blend with its surroundings. You can make it appear larger or smaller. You can make one room seem cooler, and add apparent warmth to another. You can brighten or subdue lighting. Paint also helps express your personality.

OTHER REASONS. Smooth painted surfaces are more sanitary; less inclined to soil; easier to clean. Paint saves work.

Special finishes have other functions such as complete waterproofing; making identification easy; indicating use or contents (red for gasoline containers), etc.

Outside building walls should be painted at least every 4 or 5 years; or whenever paint no longer gives protection. Paint

inside walls when damage or wear from washing requires, or whenever new colors are desired.

By doing your own painting you can save the labor cost which may be more than half of the total. But do not attempt to economize with inferior materials. High quality paint, like Wards, lasts longer and gives better protection with less chance of failing later. Also best paints generally apply faster and easier; give greater "hiding" and coverage; look better.

Nearly anyone can paint successfully by following a few simple rules and suggestions. The purpose of this booklet is to help you decide exactly what you wish to accomplish; to guide you in planning the work; selecting proper type paint and colors; preparing surfaces and applying the paint.

Read the entire booklet for an overall understanding, then refer again to sections dealing with the specific jobs you want to do. Consult the Quick-Check Guides on Pages 21 and 22 to be sure you have all materials needed.

If you have a special painting problem that is not answered by this booklet, consult Wards experts. State your problem fully and mail to Paint Advisory Service, Montgomery Ward, 10th and Washington Sts., Chicago Heights, Illinois. There is no charge for this service.

CONSIDER THESE FACTORS IN CHOOSING COLORS

In selecting colors consider these general factors:

EXISTING COLORS THAT CAN'T BE CHANGED—permanent furnishings; house setting, etc.

STYLES AND TRENDS influence color selection. Deep tones, rarely used a few years ago, are much favored today, and now interest in pastels seems to be increasing again.

IS IT PRACTICAL? In many cases you will want colors that will not show dirt easily. A neutral tone, neither too light nor too dark, is less likely to show dust, smudges and mars. But remember, resistance to soiling and ease of cleaning depend more on type of finish than on color.

TO "WARM" OR "COOL." Warm colors are red, yellow, brown and shades of other colors in which these are mixed. Cool colors are pure blues and greens although some shades with yellow, red or brown added have a warm cast. Gray or purple can be either warm or cool, as they lean to red or blue—brownish-gray is warm while blue-gray is cool.

South rooms appear cooler with green, gray or blue walls. North rooms receive a warmer feeling from colors containing red, yellow or brown. Light colors brighten a dark room. Dark colors soften glare in a bright room.

SPACE ILLUSIONS. Warm colors make room seem smaller while cool colors give feeling of greater space. Also lighter shades of any color make room seem larger while darker tones appear to draw in walls and make room appear smaller.

TO EMPHASIZE OR SUBDUE FEATURES. Poorly shaped rooms can be improved by using dark shades on walls you want to "pull nearer" and light shades on walls you want to "push apart." For example, a long, narrow room often seems better proportioned if one end wall is a darker color or shade than side walls. High ceilings seem lower if painted darker than walls.

To set off a portion of a room such as dining area or alcove in living room or breakfast nook in kitchen, paint the area a different, contrasting or harmonizing color.

Rooms cut up by many doorways and windows have better unity when woodwork is painted to match walls. Often moldings, baseboards, radiators or registers and electric outlet plates are painted same color as walls. Remember, any feature in a color contrasting with walls will stand out.

PREFERENCE. Choose colors you like and will enjoy living with; that you feel are appropriate. Good color principles allow ample expression of your own preferences.

INTERIOR COLORS. Develop color plan from colors not feasible to change. When selecting wall colors, consider rug and drapery colors. It is effective to choose a wall color that matches, harmonizes or contrasts pleasantly with either the dominant color or a secondary color in draperies, rug or furniture fabrics.

THREE-COLOR PLAN is often used: One color for walls; a second, often white or off-white, for ceiling (woodwork painted to match either walls or ceiling); a third color repeated from place to place in rug, lamp shades, slip covers, drapery pattern or bric-a-brac. Third color may harmonize or contrast with wall.

In bedrooms, delicate tints often preferred. Medium shades that deepen by artificial light and brighten by daylight are restful or cheerful at the proper time.

As bathroom and kitchen usually are small they will take strong colors better than other rooms, but lighter colors add brightness. White or pastel for ceiling gives better light diffusion. Colors must go well with countertops, wall tile and floor.

EXTERIOR COLORS. Consider building location, size and design. Choose colors that won't clash with neighboring houses or buildings, that are appropriate to natural setting. (Florida pastels look out of place in the deep summer green or autumn brilliance of northern woodlands.) First pick wall color, then trim. Decide which features will match walls or trim.

It is best to avoid intense colors on large flat areas such as building walls. They give a startling effect and become tiresome. But strong colors may be effective as contrast—on shutters, window frames, doors, other trim.

A **SMALL HOUSE LOOKS LARGER** when painted white or a light color with trim same color as exterior walls.

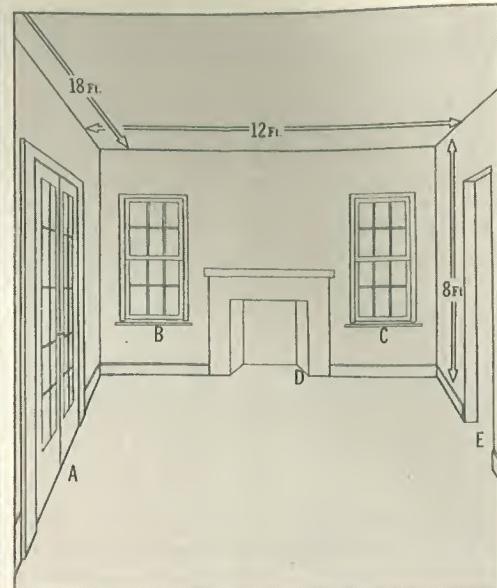
A **LARGE HOUSE LOOKS SMALLER** when painted a dark color. **HOUSES AMONG TREES AND SHRUBBERY** stand out in white; blend into background when painted brown or green.

EXCELLENT TRIM COLORS for a white house are green, gray, black, yellow or maroon. When house is a medium color, trim may be lighter or darker shade of the same color, or white. White trim is attractive on a gray, yellow, green or red building. One popular treatment for rambling, one-story houses in country settings is to paint house "Rustic Red"; trim white.

UNITE FARM BUILDINGS WITH COLOR. Achieve color continuity by repeating a color on all buildings. For example, you can paint house, barn, other buildings white with same contrasting trim color, or paint barns and sheds red with white trim and house white with red trim.



1. Take these Dimensions for Exterior Paint



2. Interior Measuring

HOW MUCH PAINT TO BUY

Estimate square-foot area of surface to be painted and divide by square-foot coverage of paint. Buy a little more paint than needed so you will have some left for touch-up of areas that may be damaged later.

Coverage given for paint usually reads "up to 400 sq. ft." or "up to 600 sq. ft." etc. Actual coverage varies with condition and type of surface. Unpainted wood, plaster and masonry are porous and will absorb more paint than a previously painted surface or smooth metal. Coverage may be from 100 to 150 sq. ft. per gal. less than maximum, stated for a smooth, dense, surface in good condition. For coverage of any Ward Paint see Catalog description or obtain at Retail Store.

EXTERIOR SURFACES. Measure distance around building and multiply by height of eaves, in feet. Add areas of all gables (width of each gable base multiplied by $\frac{1}{2}$ gable height).

In measuring around building, work systematically. Measure width of each wall section from corner to corner, then total.

If height to eaves varies on different sides, find area of each side separately, then add together. For exterior estimating, do not subtract anything for doors, windows, etc.

Divide total wall area by number of square feet covered by gallon of paint. Unless otherwise stated, coverage is for previously painted or undercoated surface in good condition.

If painting new, unpainted or old weather-beaten surfaces reduce gallon coverage of first coat by 100 to 150 sq. ft.

EXAMPLES: Distance (A) around house (Picture 1) totals 170 ft. Height (B) to eaves is 10 ft.; $170 \times 10 = 1700$ sq. ft. Width (C) of front gable is 22 ft.; height (D) is 12 ft. Area is 22×6 (width x $\frac{1}{2}$ height) or 132 sq. ft. If total areas of all gables is 425 sq. ft., then total wall area of house is $1700 + 425$, or 2125 sq. ft. If paint you select covers 600 sq. ft. per gallon and surface is in good condition, you will need 3.54 gallons ($2125 \div 600$) or, figuring to the

next higher quart, 3 $\frac{3}{4}$ gallons of paint, for each coat. If surface has not been painted or paint has worn off, figure coverage at 450 sq. ft. per gallon. In such case you will need 4.72 ($2125 \div 450$) or 4 $\frac{1}{4}$ gallons per coat.

Amount of trim paint depends upon number and size of window frames, shutters, doors, etc. Most houses require 1 to 2 gallons of trim paint for every 5 gallons of house paint.

INTERIOR SURFACES. Multiply ceiling length by width, in feet. (If drop type, add areas of four wall strips—if to be same color.) Divide area by sq. ft. gallon of paint covers.

EXAMPLE: Ceiling in Picture (2) is 18 ft. long and 12 ft. wide, so has area of 216 sq. ft. (12×18). Paint selected covers up to 500 sq. ft. per gallon. As 216 divided by 500 is .4 or a little less than $\frac{1}{2}$, you need $\frac{1}{2}$ gallon (2 quarts) for ceiling.

For walls, measure total distance around four walls of room; multiply by height from baseboard to ceiling, or to molding in case of drop ceiling. Subtract areas not to be painted—doors, windows, fireplace. Divide by sq. ft. gallon of paint covers.

EXAMPLE: (Picture 2). Total wall area is distance around room ($12 + 18 + 12 + 18 = 60$ ft.) multiplied by height from baseboard to ceiling (8 ft.) or 480 sq. ft. (60×8). Combined areas of french doors "A" (28 sq. ft.), window "B" (12 sq. ft.), window "C" (12. sq. ft.), fireplace "D" (25 sq. ft.) and door "E" (16 sq. ft.) is $28 + 12 + 12 + 25 + 16 = 93$ sq. ft. Subtracting 93 from 480 leaves 387 sq. ft. to paint. If gallon of paint covers 400 sq. ft., buy 1 gallon for each coat.

For average door and window frames, molding, baseboards, other woodwork, allow about 1 pint for every 100 running feet. Increase if woodwork is extra wide.

Floor area is length of room multiplied by width in feet. Divide by coverage of paint or varnish.

CHOOSE SUITABLE FINISH FOR EACH JOB

Type paint to use depends on personal preference and requirements of the job. Consider: 1) Type of room or building; 2) Indoors or outdoors; 3) Whether for ceiling, wall, floor, etc.; 4) Material to be covered.

Often there is a choice of two or more finishes. In such cases, consider your preferences; colors available; differences in preparation; application methods and costs.

KITCHENS, BATHROOMS, UTILITY ROOMS. Use gloss, semi-gloss or soft-sheen enamel on walls, ceilings and woodwork. Grease,

dirt, moisture, smoke, household stains do not adhere readily. Enamels retain color and sheen after repeated washings. Also for cabinets, stools, other articles in these rooms. May be used on radiators, registers, other trim you want to match walls.

For whitest, smoothest, most enduring high gloss white use Wards Porcelain-White Enamel. Contains silicones. For high gloss in colors, use Wards One-Coat Gloss or Decorative Enamel.

For low gloss plus enamel durability select Excel-Glo Soft Sheen, or Semi-Gloss Enamel. Excel-Glo washes like a baked-on surface; silicones for smooth durability. (Continued, Page 5.)

CHOOSE SUITABLE FINISH. (Continued from previous page.)

LIVING, DINING ROOMS; BEDROOMS, HALLS. Here a flat finish is often preferred for ceilings and walls (and sometimes wood-work). All flat paints can be used on most interior wall and ceiling materials including plaster, wallboard, plasterboard, brick, tile, concrete; even wallpaper that is smooth and firmly stuck. Apply to radiators, registers, other trim you want to match walls. (Woodwork and doors, subject to finger marks and smudges, usually are enameled in matching or contrasting color.)

Oil-base flat paint comes ready to stir and apply. Washable with soap and water. Excelon and Super Kem-Tone (both *rubber-base* wall finishes) have only the slightest perceptible sheen when viewed at an angle; most washable of flat paints.

Casein Paint and Kem-Tone are very flat; *water-thinned*. Low cost and cleanable. Far superior to kalsomine.

Excel-Glo enamel is soft enough for living, dining or bedroom walls where very slight sheen is desired. Excellent for nursery, playroom—wherever repeated washings are desirable.

You may wish a rough, texture finish for decorative effect or to cover old, cracked walls and ceilings without replastering. Texture paint covers cracks, taped seams, holes, dents, other surface irregularities if not too large or deep. Applied like paint with brush or roller coater. Dries hard. Can be textured in wide variety of patterns with brush, sponge, scraper, etc. (page 15.)

Texture Paints come in Powder (*water-thinned*) and ready-mixed *Rubber-Base* Excel-Tex. Sand-Kote is a ready-mixed, *oil-base* finish that gives a sand-plaster effect, or can be textured.

FLOORS. Wood floors, stairs finished natural with Marproof Floor Varnish, Color Varnish, Seal-Tone plus Spar-Wax or Plastic Finish. For color use Floor Enamel. For linoleum floors use Spar-Wax or Plastic. For asphalt, vinyl, rubber tiles, Tile-Glo.

BASEMENT. Paint dry walls with almost any *oil-base*, *rubber-base* or *water-thinned* interior paint. For damp masonry walls use masonry paint. For concrete basement floors use *Rubber-Base* Floor Enamel, or *oil-base* Floor Enamel (etch first).

EXTERIOR WOOD SIDING. Requires proper *oil-base* finish to condition and preserve wood. Wards Super House Paint gives a first-quality finish. Contains raw and treated linseed oil for long-lasting protection; magnesium silicate for strong bond. Dirt-shedding, self-cleaning action keeps finish fresh and clean. Wards Titanium White House Paint contains Titanium Dioxide, the pigment that hides best and gives whitest finish. In industrial areas where chemical fumes combine with lead in regular white house paint to darken finish, use Fume-Resistant House Paint.

EXTERIOR STUCCO, CEMENT, BRICK, STONE. Use *oil-base* or *water-thinned* masonry paint. Water paints require porous surface; cannot be used on masonry previously painted with *oil-base* finish. *Oil-base* finishes may be used on either unpainted or painted masonry. Use Super House Paint, or Fume-Resistant House Paint, or Stucco Cement and Brick Paint or Super Barn Paint. Stucco, Cement and Brick Paint gives a flatter finish (less gloss) which some prefer, as more like natural cement or stone.

WOOD SHINGLES. Stain new wood shingles with Shingle Stain of desired color. Penetrates, preserves and colors. Old wood shingles previously stained or painted, should be refinished with Shingle Paint to give new color and protection, while retaining the attractive, rough-grained appearance.

NATURAL REDWOOD; CEDAR. On new, unpainted redwood, cedar, dark-colored pine or other natural wood siding or trim, apply Wards siliconized Clear Finish. To restore red color to weathered surfaces, first apply Redwood Finish Sealer and Preservative.

OUTSIDE TRIM. Shutters, window frames, doors, cornices, ornamental iron and other trim may be painted to match siding with Super House Paint, Fume-Resistant House Paint or Barn Paint. If using a shingle or masonry paint, not suitable for wood or metal, or if you prefer a bright harmonizing or contrasting color, paint trim with Trim and Shutter Paint. For natural finish on outside doors or other wood use Wards Clear Finish or Spar Varnish.

Unpainted metal trim such as steel windows and gutters should be primed with Chromate Metal Primer. Trim and Shutter Paint or Decorative Enamel is commonly used on mailboxes, doorbells, outside light fixtures, other small metal work.

PORCHES AND DECKS. Outside porch floors, stairs, any surfaces exposed to weather and foot traffic require a tough, resistant finish. Use Porch and Deck Paint on wood, brick or metal. Use Rubber-Base Floor Enamel on concrete.

SCREENS AND STORM WINDOWS. Paint both sides of steel wire screening with Screen Enamel. To prevent staining from copper, bronze or aluminum screening, coat with spar varnish. Paint frames with Screen Enamel, Trim and Shutter or House Paint.

FENCES. Protect wood fence posts from rot below ground level with Penta-Chloro-Phenol or Creosote. (Creosote can't be painted over—would bleed through and discolor paint.) To preserve natural finish of rustic fences, use Clear Finish or Redwood Sealer Finish. Paint fences with White Creosote Paint, Super House or Trim and Shutter Paint. Prime metal with Chromate.

BARNs AND FARM BUILDINGS. Wards Super Barn Paint is excellent for all farm buildings, fences, etc. Best pigments and oils give years of beauty and protection. When applied and dry will not cause serious effects if licked or chewed by animals. Resists fading. Use on wood, brick, concrete, stone or metal.

House Paint also is fine for barns, garages, other structures. For cement, brick or stone silos use any paint recommended above for outside masonry. To make inside of silo water-repellent, check evaporation, use Asphalt Roof, Foundation Coating.

OTHER PAINTING PROJECTS. See Page 20.

Additional information on painting materials:

Paints and *enamels* are mixtures of pigments and vehicles. Pigments are metallic compounds which give color, hardness, wearing and hiding. Liquid vehicles—oils, thinners, solvents, driers; resins—make it possible to brush or spray the paint; control its penetration, finish, drying, coverage.

The term "coverage" is often confused with hiding power. Coverage is area of surface a quantity of paint will cover, regardless of hiding ability. Hiding power is ability of paint to obscure surface over which applied.

Silicones and synthetic rubber or "latex" are becoming increasingly important as paint ingredients. Make paint tough; dirt- and moisture-resistant; increase washability. The paint chemist produces a wide variety of finish types to meet different needs:

OIL-BASE FINISHES. Include house and barn paints; interior flat wall paints; enamels; varnishes; stains. Contain linseed or other oils, plus thinners. Paint hardens or "dries" by combination of oils with oxygen from air and evaporation of thinners.

PAINTS. House paints are for outside only. Should be tough and durable with fade-resistant colors.

Flat Interior paints have a soft, velvet-like "matte" finish without gloss or shine. While the best flat oil paints are washable, none of them is as durable as best enamels.

Enamels contain varnish, and dry to a hard, smooth finish that soils less easily and is highly washable; resistant to moisture and wear. Range from gloss to soft-sheen.

VARNISHES give a tough protective finish without hiding natural grain of wood. A good floor varnish, such as Wards Marproof, is tough, to withstand foot traffic; resist marring; stands repeated washings without spotting or turning white; resists acids and alcohol. *Color Varnish* is for badly worn floors, woodwork and furniture not being completely refinishing.

Pale-Trim Varnish is colorless—water-clear. For blond, natural, other light woodwork, furniture. Varnish for furniture won't soften and stick from body heat.

Wood exposed to moisture requires *Spar Varnish*. Use spar varnish outdoors on furniture, doors, boats, station wagon bodies, etc.; indoors for bathroom doors, window sills, bar tops.

STAINS. Emphasize graining; deepen or alter color of wood. Oil stains penetrate deeply and help preserve wood. For furniture, floors, woodwork, etc. (Continued, Page 6.)

CHOOSE SUITABLE FINISH. (Continued from Page 5.)

WATER-THINNED FINISHES. In paste, powder or ready-to-use form. Dry rapidly by evaporation of water, followed by slower automatic chemical "curing." Brushes, rollers, hands easily cleaned with water; fresh spatters wipe off with damp cloth. Four types:

- 1) **RUBBER-BASE WALL PAINT.** Very washable. Easily applied. Increasingly popular. Dries flat. Includes Wards Excelon and Excel-Tex, and Super Kem-Tone. Synthetic rubber (or "latex") makes paint tough and durable. Dirt, grease, most stains can be scrubbed off without damage. For walls, ceilings, woodwork.
- 2) **CASEIN AND RESIN-EMULSION PAINTS.** Extra-flat finish. Not as washable as rubber- or oil-base. May be cleaned (after aging) with wallpaper cleaner or mild soap. For interior walls, ceilings.
- 3) **CEMENT AND MASONRY PAINTS.** For cement, stucco, brick and other porous, unpainted interior and exterior masonry walls. Stay on wet basement walls where oil-base paints flake off. Will check water seepage and color walls at same time.
- 4) **KALSOMINE AND WHITEWASH.** Low-priced but spot easily. Cannot be washed or re-coated. Seldom used today.

OTHER FINISHES; MATERIALS. LACQUER is a solution of nitro-cellulose, clear or colored. Principally for factory finishes on furniture, other articles. Hard, glossy. Should be sprayed; difficult to brush smoothly.

PLASTIC FINISHES. Produce clear coating, highly resistant to water, soap, acids, alcohol, etc. For wood or linoleum floors, furniture, woodwork.

MIX AND STIR FINISHES CAREFULLY... HOW TO BLEND COLORS

Take time to prepare paint. It goes on easier; gives a better looking job. (Note pictures on opposite page.)

STIR PAINT THOROUGHLY. Heavy pigments at bottom of can and liquids on top must be mixed thoroughly to give paint true color and spreading consistency. Pour off liquid into clean container (Picture 3). Stir remainder in can (Picture 4). Use perforated steel stirring paddle or clean, flat stick.

Scrape all pigment from can bottom, side and seams. Run corner of paddle or edge of clean screwdriver around crack at bottom to bring out pigment. Stir thick pigments very slowly, then a little faster as pigments and liquids blend. Slow, persistent stirring is more effective than short fast spurts.

Blend to smooth consistency then slowly pour liquid back while continuing to stir (Picture 5). Keep stirring until all streaks disappear. While applying paint re-stir frequently.

Any lumps, "skins," etc. may be strained out through wire screen, old sieve, nylon stocking or double-thick cheesecloth, (Picture 6). Straining is always necessary for spray painting.

The bucket shown is specially designed for stirring, thinning, mixing paint and holding it while painting. Five-quart capacity.

Varnish, shellac and other clear finishes should not be stirred or shaken. If thinned stir slowly; let bubbles disappear.

WHEN TO ADD THINNER OR OIL. Most finishes require no thinning to apply with brush or roller coater. If paint or varnish stored in a cool place seems too thick, don't thin immediately; it may thin to proper consistency when warm.

In the following cases thinning is usually required:

- 1) If same material will be used for first coat on new, unpainted or badly weather-beaten outside surface. To make up for oils absorbed, oil is added to first coat.
- 2) Some finishes need thinning for spraying.
- 3) Paint that has been partially used then stored may develop a scum or "skin" on surface. If skin is thick add oils and thinner (not applicable to enamels, varnishes). Not as good as fresh paint.
- 4) Casein, resin-base, rubber-base and texture paints may come in paste or powder form, to be thinned with water.
- 5) Where finish must be extra-thin for special effect.

USE PROPER THINNER. For simple thinning of all oil-base finishes—house paints, flat paints, enamels and varnishes, use either Paint and Varnish Thinner or Turpentine—wherever the

SHELLAC. A gum, thinned or "cut" with alcohol. Dries hard but tends to be brittle and show water stains. Seals knots, pitch, sap areas in new wood so they won't spoil paint or varnish finish. Used also over old stained wood, mahogany or walnut color, before painting, to prevent stain from bleeding through. *Koverstain* is a special pigmented shellac for these uses.

SPAR-WAX gives satin-like finish to new or newly sanded floors, woodwork, paneling, furniture (apply Seal-Tone first).

RUBBER-BASE FLOOR ENAMEL. For concrete floors, indoors or out. Tough synthetic rubber resists chipping, peeling, alkali.

MASONRY SEALER. Silicone-base. Water-repellent. For unpainted stucco, brick, concrete walls. Transparent. May be painted over.

PRESERVATIVES. Protect raw wood above or below ground from termites, borers, other insects, rot. Two types:

- 1) *Penta-chloro-phenol.* Colorless and odorless when dry. Won't bleed through top coating of paint or varnish. Excellent for building flooring, studding, frames and sills.

- 2) *Creosote Wood Preserver.* Lower priced but stains wood dark brown; can't be painted over. For fence posts, stakes.

UNDERCOATS AND PRIMERS. Definitely not just "cheaper" first coats; they are specially formulated to seal and condition surfaces properly to receive finish paints.

SURFACE CONDITIONERS. *Excel-Prep* prepares enameled and varnished surfaces for refinishing, without laborious sanding. Also smooths fine surface "crazing." *Floor-Etcher* prepares smooth, non-porous concrete floors for better paint adhesion.

MIX AND STIR FINISHES CAREFULLY... HOW TO BLEND COLORS

term "thinner" is used in this book it means either, unless otherwise stated. Add slowly and stir thoroughly. A little goes a long way. Don't try to "stretch" paint by adding thinner. Thin paint will neither cover, hide nor protect as well. Too much reduces gloss of enamel or varnish.

Oil is usually added to first coat of oil-base house or barn paint only when undercoat has not been applied. Use Raw Linseed Oil except in cold weather; then use faster-drying Boiled Linseed Oil. Follow label directions.

Rubber-base floor enamel requires special thinner for thinning, cleaning brushes, wiping up spots, etc. With shellac or *Koverstain* use Shellac Thinner or 188-proof alcohol. Use Lacquer Thinner for lacquers. Follow labels for other finishes.

Thinner and other liquids are more easily poured from cans with small holes by holding opening at top or side as in Picture 7. Prevents thinner from gurgling; less spilling over can.

PREPARING WATER-THINNED PAINTS. Use clean bucket for mixing powder or paste form. Thin with clear water. Check label for amount. A clean milk bottle or measuring cup is handy.

To mix powder casein paint add powder to clean water; always pour powder into water (Picture 8). Stir thoroughly and let stand for 30 minutes. Then add water to bring mixture to application consistency (Picture 9). As casein paint washes off hands easily, lumps can be broken with fingers (Picture 10). For spraying strain. See label for other powders.

PREPARING SPECIAL COLORS. Paints are offered in many attractive, ready-mixed colors. However, you may wish to mix your own colors; perhaps to match a fabric. "Custom" colors are produced in 2 ways:

- 1) Intermixing colors of the same finish.

- 2) Tinting white or ivory with concentrated colors (paste or liquid). Such finishes are called "let-downs."

Most paints are suitable for color mixing. An exception is Titanium White House Paint. Wards Porcelain-White Enamel does not take tinting as readily as less intense whites. These contain special ingredients for permanent whiteness.

When intermixing colors use identical brand and type. Never mix oil-base with water-thinned or rubber-base paints. Gloss will be reduced if gloss finish is mixed with flat or semi-gloss.

You may intermix or let-down to a formula supplied by the manufacturer to get a color shown on his color "chip," or experiment and produce colors of your own. (Continued, Page 7.)



3. Pour off Liquid



4. Stir Thoroughly



5. Mix Liquid Back



6. Strain if Necessary



7. How to Pour Thinners



8. Add Powder to Water



9. Mix; Add More Water



10. Break Up Lumps

HOW TO MIX...BLENDING COLORS

(Continued from previous page.)

Mix colors very slowly, usually by adding a little of the darker color to the lighter at a time and stirring well. Test frequently on test surface; let dry, then check color. Keep accurate record of proportions so, if necessary, you can mix similar color again. Mix ample quantity with a margin of safety as a new batch will not match perfectly. Even in a factory with scientific formula controls color matching from batch to batch requires great skill.

"Let-downs" are colors produced by mixing rich, intense, Deep Tones or "Colors in Oil" with white (or ivory). For a medium or dark shade developed from a Deep Tone, lighten by adding small amounts of white until reaching desired shade. For pastels and medium light shades, start with white or light color and slowly add darker. Stir separately to smooth consistency before mixing two materials together.

Colors-in-Oil can be used with any Ward oil-base interior flat paint or enamel or outside paint (except Titanium White). Will not add shine to flat paints or cut gloss on enamels.

Paste colors should be mixed first with enough thinner or linseed oil to make a smooth, lump-free liquid; then mixed slowly into paint. Fluid form is mixed in without pre-thinning.

Some colors "warm" or "cool" other colors. To warm any color except green, add a little red. To warm green add some yellow. To cool, add a little blue to pink, green or gray. A very little green plus a touch of blue cools ivory, yellow, cream, tan. To make a color softer (less bright), add a bit of black or gray. To lighten add white. To brighten add more color.

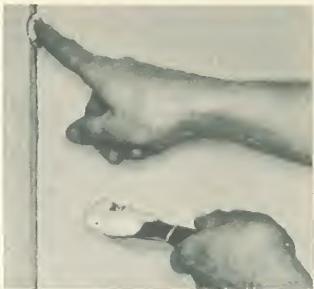
Free Ward color card shows many colors produced by mixing Colors-in-Oil with white. For examples of "let-down" and intermixed interior colors, with formulas, request free Super Interior and Excel Interior color cards.



11. Undercut Large Cracks



12. Apply Patching Plaster



13. Use Finger for Corners



14. Sand Repaired Crack



15. Taper Off Sharp Edges



16. Fill Joints, Nailheads



17. Apply Tape Over Joint



18. Cover with Joint Cement



19. Remove Finish Carefully



20. Use Steel Wool on Edges



21. Machine Best for Floors



22. Disc Edger Reaches Edges



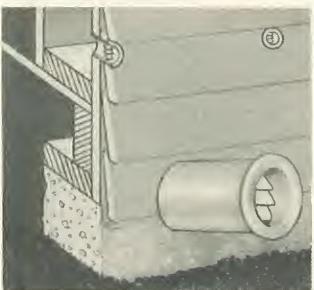
23. Siding Too Near Ground



24. Siding Above Wet Ground



25. Attic Louvers Ventilate



26. Wall Vents Free Moisture

EVEN GOOD PAINT NEEDS A GOOD SURFACE

Don't attempt to hide surface defects with paint. Unrepaired cracks, dirt or moisture may cause new paint to fail. Take time to prepare surface properly. These general principles apply to painting all surfaces, and to all finishes:

1. MAKE NECESSARY SURFACE REPAIRS. Most finishes will not hide cracks, holes, dents or other surface irregularities.

2. SURFACE MUST BE CLEAN. Brush off all loose dirt, dust, cobwebs, loose plaster or paint. Wash inside walls, ceilings, wood-work with soap or detergent to remove greasy film and dirt. Rinse with clear water—some soap residues injure paint.

Paint will not stick to grease, oil or wax. If any remains after washing, treat with wax remover, turpentine or paint thinner. Rub down stubborn spots with sandpaper or steel wool. Wash ceiling first, then walls. Wash woodwork also at this time to avoid spattering new paint later.

3. SURFACE MUST BE THOROUGHLY DRY. Allow plenty of time to dry after washing. Don't paint exterior surfaces too soon after rain. Don't paint walls damp with dew or frost; give sun time to dry them out. Dampness trapped under paint causes peeling later.

4. SURFACE MUST NOT BE GLOSSY. Paint or varnish is difficult to apply over a shiny finish such as gloss enamel, baked enamel, varnish or lacquer. The material goes on unevenly, tending to "crawl" and form globules. Such surfaces should be dulled (or "cut") slightly with liquid conditioner (Wards Excel-Prep), sandpaper or steel wool to provide "tooth" so new finish will spread.

5. SURFACE MUST BE CHEMICALLY AND MECHANICALLY RECEPITIVE. Do not apply any type paint over kalsomine or whitewash no matter how clean or smooth. Wash kalsomine off with warm water and a sponge. Be thorough; get it all off—be especially careful in cracks and corners. A wall scraper may prove helpful

in removing thick kalsomine after it is soaked. Remove whitewash with warm water and a scrub brush.

Knots and sap streaks in new wood must be sealed with Koverstain or shellac to prevent resins from oozing through finish. Previously stained wood must be sealed with Koverstain or shellac before painting, to prevent "bleeding" through. Mahogany and walnut stains are especially inclined to bleed through.

Allow new concrete, plaster or masonry 4 to 6 weeks to "cure" and dry out thoroughly before applying oil-base paint. Free alkalies keep paint from drying properly and may cause it to peel off. If paint must be applied sooner, neutralize alkalies by washing down with solution of zinc sulphate in water.

PREPARING INTERIOR WALLS AND CEILINGS

PLASTER. Inspect new plaster carefully. Scrape off any loose bumps; smooth rough spots with sandpaper. Use Wall Primer and Sealer on new plaster before applying enamel.

Before repainting check old plaster surface for defects. Fill small holes, cracks, dents and nicks with Spackling Compound. For large cracks and holes and to replace areas where chunks of plaster have fallen, use Patching Plaster. For filling cracks around bathtubs where moisture may crumble plaster, use special sealer made for this purpose, or Caulking Compound or Putty.

Filling large cracks requires extra care. Widen and deepen cracks until reaching firm plaster, then undercut edges so that bottom of crack is wider than surface (Picture 11). An old knife, putty knife or cold chisel may be used.

Brush out all loose plaster and dirt. Then soak inside of crack and outside edges with water so new plaster will form a strong bond. Use clean brush, sponge or rag for water.

Using a putty knife, scraper or small trowel force patching plaster into crack (Picture 12). If crack is in corner use finger (Picture 13). Fill crack completely, then lightly draw moistened rag or sponge over fresh plaster to smooth. After patch is dry, sand even with surface (Picture 14).

Sharp edges where paint has blistered and peeled off should be sanded so they taper gradually and won't show under new paint (Picture 15). Spot prime all patched areas and any exposed old plaster before painting.

WALLBOARD AND PLASTERBOARD. Dry-Wall construction panels are nailed to studding. Joints and nail holes must usually be filled and joints covered with tape before painting.

First be sure all nail heads are set below surface. Using a painter's Broad Knife apply a fairly heavy, even layer of Joint Cement, 5 to 6 inches wide, the entire length of the joint (Picture 16). Then place perforated Joint Tape over joint. Draw broad knife firmly over tape (Picture 17) to force cement through perforations for secure bond; squeeze out excess cement and smooth.

Spread a thin finishing coat of cement over joint and work 4 to 5 inches on each side to gradually "feather" (taper) edges (Picture 18). When cement is dry, sand joint smooth.

Texture paints are popular for new dry wall surfaces as they hide slight imperfections. Any paint may be used, however. For oil-base paint first apply a coat of wall primer.

WALLPAPER. Wallpaper in good condition and glued firmly to wall may be painted over. Wipe paper with a clean dry cloth to remove loose dirt and dust. Do NOT use wallpaper cleaner as it may leave film to which paint won't stick. Glue or paste down any loose edges rather than tearing them off. Sand existing torn edges to smooth taper. Patch cracks and holes with Spackling Compound or Patching Plaster; when dry, sand smooth.

Water-mixed casein and rubber-base paints are commonly used over wallpaper. They cover most paper in one coat, but two coats may be needed if paper has strong pattern or color. Use self-sealing Flat Paint (otherwise, prime first).

Raised patterns or designs in paper will show through paint. For best job, remove paper with Wallpaper Remover.

PREPARING INTERIOR WOOD SURFACES

Preparation of wood surfaces is similar whether floors, woodwork, furniture, stairs or wall paneling.

REMOVING OLD FINISH. If old varnish is thick, badly worn, checked or scarred, remove it and refinish surface from bare wood. Finish must also be removed if changing from paint to a natural wood or varnish finish.

Use paste type remover for woodwork and furniture as it clings to vertical and round surfaces. Apply a generous coat with an old paint brush. Let stand for 10 to 20 minutes, then scrape a test area with scraper to see if finish has softened enough. If it doesn't peel off cleanly, let remover work a little longer. Be careful; keep remover off nearby surfaces.

Use scraper carefully to avoid gouging wood. Push it ahead gently but firmly (Picture 19). If working on thin veneer, wipe off old finish with burlap as scraper may damage. Use burlap, steel wool or steel brush on round and irregular surfaces where knife won't reach (Picture 20). Sanding may be necessary to remove stubborn spots. After removing finish scour surface with paint thinner, turpentine or wax remover to clean off wax residue.

Use care in handling chemical removers as they may irritate skin. Wear rubber gloves. Keep room well ventilated. When using flammable type, turn off nearby appliances such as gas stove, water heater, furnace. Turn off pilot lights too. Don't smoke. Don't operate light switches.

Use electric sanding machines on floors for fast, easy removal (usually can be rented locally). Large machine comes within two or three inches of baseboard (Picture 21). A small electric disc edger is used around edges (Picture 22). Remove quarter-round from baseboard before sanding.

If sanding machine is not available, remove old finish with Wards Paint and Varnish Remover. Brush on a small area at a time. As finish softens peel off with scraper. Then clean floor with paint and varnish thinner, turpentine or wax remover. Lightly sand entire floor and remove sanding dust.

REPAIRING NICKS AND CRACKS. Fill dents, holes, cracks, gouges, etc., before applying finish. Clean loose material from damaged area and fill with Patchwood. Bring up to level of surrounding surface and smooth with putty knife. When dry, Patchwood can be sanded, then stained or painted.

FILLING OPEN-GRAIN WOODS. New or machine-sanded open-grain woods require Paste Wood Filler to seal pores and build up a smooth, even surface for finishing. Open-grain woods requiring filler include: mahogany, walnut, oak, elm, cherry, birch, ash, hickory, chestnut and butternut. Close-grained woods NOT requiring filler include: maple, pine, gum, cedar, fir, beech, poplar, basswood and cottonwood. Filler paste is light, neutral color. If desired, it can be colored with Penetrating Oil Stain.

Staining and filling can thus be combined into one task. Thin filler with equal amount of Paint and Varnish Thinner (or desired stain if coloring) and apply in patches of 1 to 2 square yards with paint brush or cloth. As soon as gloss disappears, rub across the grain with burlap or coarse mesh cloth, leaving filler only in wood pores. Be sure all excess filler is removed. Let dry overnight, then sand smooth with fine sandpaper.

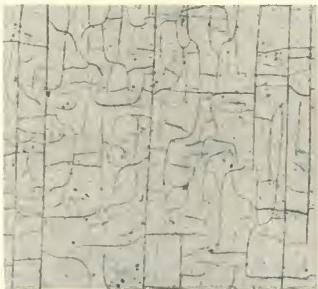
PREPARING OUTSIDE SURFACES

GENERAL REPAIRS. Before painting exterior of any building give it a thorough examination from roof to foundation. Make any needed repairs first to avoid marring new paint later.

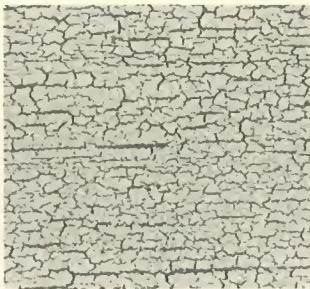
Moisture in walls is most common cause of outside paint failure. Check these moisture sources:

WOOD SIDING. Paint failures often occur where wood siding comes too close to ground (Picture 23). Ground moisture works up into walls and causes paint to blister. Two possible remedies: 1) Remove foot or so of siding and replace with masonry; 2) lower grade line (level of lawn) a few inches (Picture 24).

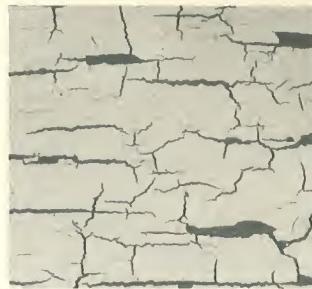
CONDENSATION. Caused by warm, moist air passing through interior walls to cold outside walls. In new construction, aluminum foil or other vapor-barrier type insulation will reduce this. In finished house 1) provide interior moisture-barrier with oil-base or rubber-base paint on walls and 2) insure adequate wall ventilation with attic louvres (Picture 25) and small vents in lower outside walls (Picture 26). (Continued on Page 10.)



27. Paint Checking



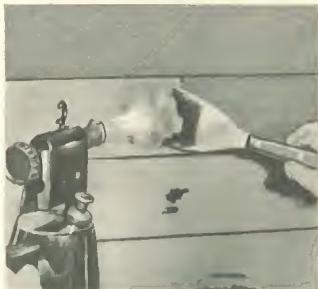
28. Alligatoring



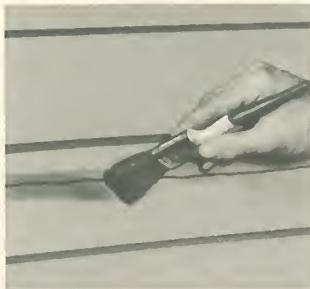
29. Cracking and Scaling



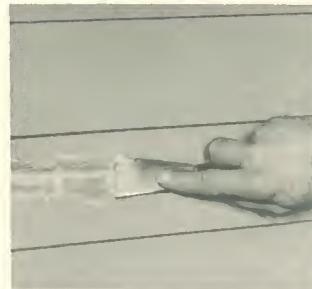
30. Paint Blistering



31. Torch and Scraper Method



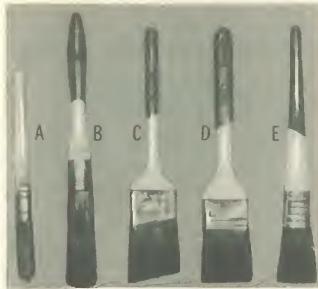
32. Clean and Prime Cracks



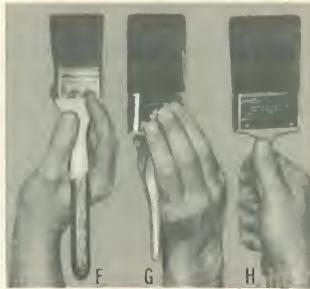
33. Fill Cracks with Putty



34. Tuck Point Brick Joints



35. Paint Brush Types



36. Common Brush Grips



37. Twirling New Brush



38. Working out Dust



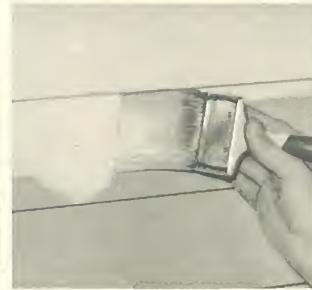
39. Dip only 1/3 Brstle Length



40. Paint Edges of Siding



41. Remove Excess from Brush



42. Smooth with Even Strokes

EVEN GOOD PAINT NEEDS A GOOD SURFACE

(Continued from previous page.) ROOF. Moisture often gains entrance to walls through roof leaks. Replace loose or missing shingles; use roof cement to seal leaks in composition roofing.

Reseal joints and flashings where chimneys and plumbing stacks come through roof with roof cement. Mortar loose bricks and chimney cracks. Remove leaves and other debris which cause rain gutters to overflow and moisture to seep into walls.

WINDOWS AND DOORS. Leaks are often found where frames join siding. Seal tightly with caulking compound. Replace broken window panes and loose, dry putty (See instructions, Page 19.)

WET BASEMENT. Repair cracks and holes with Masonry Leak Stop. Check seepage with Masonry Sealer or Dampchex.

Seepage usually indicates large volume of ground water against foundation. Install underground drain tiles and concrete aprons under downspouts to carry water away from walls.

NEW WOOD SIDING. When ready to paint, check siding carefully. Be sure all nails are hammered in tight. Smooth down rough areas with sandpaper. Seal knots and sappy streaks with Koverstain or shellac. To prevent nailheads rusting, spot prime with Chromate Primer before any painting, or cover with putty after undercoat. Calk joints around window, door frames.

OLD WOOD SIDING. Replace rotted and broken siding. Nail down loose boards; hammer in nails. Brush off loose dirt and cobwebs. Be sure corners and horizontal surfaces are brushed clean.

Old finish in poor condition may require complete removal. There are 4 common easily recognized types of paint failure:

- 1) CHECKING. (Picture 27.) Usually means first coat was not thoroughly dry before second coat was applied. Film is thin and needs immediate repainting.
- 2) ALLIGATORING (Picture 28.) Either undercoat not suitable or did not harden before finish coat was

applied. Remove to bare wood. 3) CRACKING AND SCALING. (Picture 29.) Paint is old or brittle. Remove to bare wood. 4) BLISTERING. (Picture 30.) Excessive moisture behind paint film. Moisture may have been in wood at time of painting or gained access later from roof, wall or flashing leaks or from condensation inside walls. Remove to bare wood. Eliminate cause.

Mildew may attack paint in warm, damp, shaded areas. Wash off with household ammonia or strong detergent such as trisodium phosphate. Rinse and allow to dry. When repainting put 1 oz. of Ad-It Mildew Control in each gallon of paint.

Best way to remove old finish is with a blow torch and long-handled scraper. Handle torch carefully to avoid burning wood. Keep flame away from loose joints, cracks and glass. Hold torch in one hand so flame is about 1 in. from paint at slight angle. Move along each board, keeping flame about 2 in. ahead of scraper in other hand. As paint softens and bubbles, scrape it off (Picture 31). When halting, withdraw torch at once.

Old finish peeling only in spots or siding with cracks or holes, needs spot preparation. Remove all loose, flaking paint with wire brush and scraper. Brush dirt out of cracks. Apply primer (Picture 32). Fill with calking compound, putty or Patchwood (Picture 33). Putty over nailheads to prevent rusting through new finish. Before applying first finish coat, spot prime new boards and areas where paint has been removed to bare wood.

BRICK. Tuckpoint loose joints and cracks with new mortar or portland cement to seal out moisture and improve appearance. Obtain mortar or cement from local dealers. Use pointing trowel (Picture 34). Go over walls with stiff wire brush first.

STUCCO. Repair cracks. If too fine to patch, fill by brushing in extra paint. Clean out and undercut large cracks with cold chisel. Thoroughly wet and trowel in cement. Cracks too small to patch and too large to fill with paint are sealed with calking compound.

CONCRETE. Stiff paste of Cement Paint makes excellent patch. Also make a very thin cement paint mix to brush into cracks for bonding coat. (Calking compound may be used for cracks.)

WOOD SHINGLES. If new, use Shingle *Stain*. To refinish shingles on wall or roof use Shingle *Paint*. Check surface. Brush with a stiff brush before applying first complete coat of paint. Nail down loose shingles; replace any that have rotted. Paint both sides of new replacement shingles with Shingle Paint before installing.

METAL. Once started, rust will spread unless checked by metal primer or rust inhibitor. Be sure new iron or steel is clean and free of oil, grease, etc. Coat with Chromate Metal Primer. When repainting, clean and spot-prime bare and rusted areas only—or treat with rust inhibitor.

Galvanized or otherwise plated steel, and solid aluminum, often used for rain gutters and downspouts, are difficult to paint when new. A few months exposure to weather will usually make them take paint readily. To paint new galvanized surface immediately, wash down with solution of 4 oz. of copper sulphate in 1 gallon of water. Rinse, prime and finish.

HOW TO APPLY PAINT AND OTHER FINISHES

BRUSHING. Most widely used method. Permits close control. Finish can be applied exactly where wanted in thick or thin coat. Spots easily touched up. Satisfactory for nearly any painting job; almost always used for trim and floors.

BRUSH TYPES. Brushes vary in: 1) kind of bristle, 2) length of bristle, 3) width and 4) type of edge. Best brushes have bristles vulcanized in rubber. Chinese Hog Bristles are best natural type. They have "flag" ends which divide and spread; deposit paint evenly and smoothly. Rough surface holds paint for less dipping; less dripping. Wear well. Unharmed by most solvents.

Synthetic bristles of Neoceta or Nylon closely resemble natural bristles in performance. May be used with any oil-base, rubber-base or water-thinned finish. Do not use Neoceta in lacquer; do not use nylon in shellac. Satisfactory low-cost brushes for rough, porous masonry have Palma or Tampico fiber bristles.

Wall brush bristles vary in length from 2½ to 4 in. Narrower brushes have shorter bristles. Professional painters like long-

bristles; they are more springy, hold more paint, wear longer. A high quality, shorter-bristle brush costs less and may be easier for non-professional painter to handle though it does not "flow" the paint on quite as easily.

Varnish and Enamel Brushes have tapered or "chisel" tip (A, Picture 35) for flowing finish onto surface. Wall Brush (B) has thicker tip for spreading and working paint into surface.

Sash Brushes are for small surfaces. Type is largely matter of preference. Angular cut type (C) simplifies tracing sharp, clean paint edges around windows and in corners. Flat type (D) may be used for any trim—most convenient for window and door frames, moldings. Oval type (E) preferred by some painters.

FOR INSIDE AND OUTSIDE WALLS and other large surfaces use a Wall brush. A 4-in. width is generally best for walls when applying any oil-base paint, or stain—work is slow with narrower brush. However, if your arm tends to tire use 3½- or 3-in brush.

Water-mix masonry, casein or rubber-base paints may be applied with a 4-in. wall brush or a 5-, 6- or 7-in. "kalsomine" brush—or, for rough outside surfaces, a wide Palma or Tampico fiber brush. These heavier brushes can be used because water-mix paints "pull" much less than oil-base finishes. Enamels and varnishes pull most—use 3- or 3½-in. Wall or Varnish and Enamel Brush. Use no wider than 4-in. for texture paints.

FOR INSIDE WOODWORK AND OUTSIDE TRIM use 2-in. flat Sash Brush or 3-in. Wall Brush—depending upon surface width. Use 1-, 1½- or 2-in. sash brush around windows, in other close places.

FOR VARNISH AND OTHER CLEAR FINISHES. Keep separate brushes; it is almost impossible to get a brush used in paint clean enough for varnish. Varnish flows better, smoother, from a chisel-edge Varnish and Enamel Brush. A 3½-in. Varnish brush is best for floors and other large surfaces. For woodwork, trim and furniture use 1½-, 2- or 2½-in. brush depending on surface width.

BRUSHING TECHNIQUES. Picture 36 illustrates three common brush grips. Grasp sash brush with a pencil-grip (F). Grip (G) is comfortable for painting walls and floors. For ceilings use simple grip (H) having all fingers around brush handle. Restful to change grip from time to time. Turn brush occasionally to even wear.

Before using a new brush remove dust and loose particles by twirling rapidly between palms of hands (Picture 37), or gently running fingers back and forth through bristles (Picture 38). Dip only ¼ of bristle length into liquid (Picture 39) and lightly tap or drag one side against can rim to remove excess.

Brushing techniques vary with surfaces and finishes:

WOOD SIDING. Paint lower edges first (Picture 40). For even distribution on face, transfer paint from freshly loaded brush by dabbing a few times along surface (Picture 41). Without refilling brush use long side-to-side strokes to spread paint evenly (Picture 42). Brush well into surface, smoothing any sags or drips. Use lighter finishing strokes. At end of stroke twist brush slightly as you lift it, to avoid marks. First coat requires more brushing.

Rough surface requires additional brushing. Apply paint generously and brush in all directions to fill pores and crevices.

INTERIOR FLAT PAINTS. Paint rapidly with minimum brushing. Apply generously to small section and level off with a few light strokes. Then start new section, working back to wet edge of previous. Never jab brush into corner (damages bristles). Set tip of loaded brush in corner lightly; draw away lightly.

ENAMEL AND CLEAR FINISHES. "Flow" on generously with grain, using a few, slow, long strokes (to avoid bubbles) (Picture 43). With clear finishes, brush lightly across grain (Picture 44); finally with grain without reloading. Work with tip of brush.

CLEAN BRUSHES, before storing or when changing color. Place brush on side and gently force out paint in heel (top of bristles) with dull putty knife (Picture 45). Be careful not to cut bristles. Next, clean brush in thinner for type of paint used; work well up into bristles (Picture 46). Two or 3 "workings" necessary. Wipe each time on old cloth or paper. (Paint and Varnish Thinner or turpentine, if allowed to stand, will clarify enough to re-use for first cleaning.) Next, wash brush in soap suds and rinse. When dry, place in "keeper" jacket or wrap bristles in heavy paper to protect and retain shape. Never stand a brush on bristles. Lay flat or hang. (Continued on Page 12.)



43. Flow Varnish with Grain



44. Brush Lightly across Grain



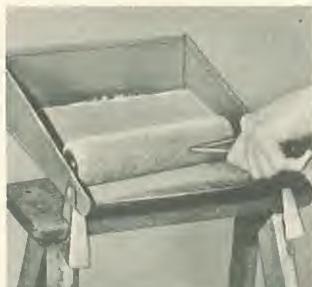
45. Work Paint from Brush Heel



46. Clean Brush in Thinner



47. Keep Bristles off Bottom



48. Roll out Excess Paint



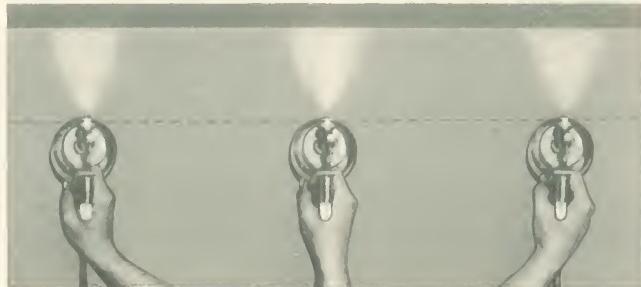
49. Self-Feed Roller



50. Clean Roller after Using



51. Shield for Rough Masking



52. Point Gun Directly at Surface; Keep Same Distance Away



53. Aim at Outside Corners



54. Work into Inside Corners



55. Spray Under-Edge of Siding



56. Dip One End, Then Other



57. Dipping Small Articles

HOW TO APPLY PAINT, OTHER FINISHES

(Continued from Page 11.)

LEAVING BRUSH OVERNIGHT. Work out excess oil paint. Place in can or jar of thinner covering bristles. To keep bristles from curling on bottom, drill hole in handle and suspend by wire or stick or, if small brush, put tack in handle and hang from edge of can (Picture 47). (Old hardened brush can often be restored with Brush Cleaner.) If using water-mixed paint, just wash out well.

ROLLER COATING. Excellent for large flat surfaces. Increasingly popular with people who do their own painting. Requires little skill; easier and faster than brush. Less dipping. Especially suitable for ceilings, where brushing tires arm quickly. Less risk of lap marks with dark flat paints. Roller cover may be lambswool, sponge rubber or fabric. Lambswool most used, gives finish very slight, almost imperceptible texture. Carpet roller gives pronounced stipple; used to apply texture paints or to

stipple them after applying with brush. (Also for Sand-Kote.)

One type roller is used with dipping tray which is set on level surface or hooked to ladder. Pour paint into tray to cover about half of bottom. Roll coater into shallow edge of wet paint, then roll out any excess on high end of tray bottom (Picture 48).

Self-Feed Roller needs no dipping. Pour paint into roller (Picture 49). As roller is operated, paint comes through small slots, keeping roller cover filled. Pressure Feed Roller connects to tank from which paint, under pressure, flows to roller when button on handle is pressed. Permits continuous painting.

To apply paint with roller coater roll on in long vertical strips. Blend each new strip into preceding strip by working roller from side to side across wet edges. Roller cannot get into corners or close to woodwork; use a trim brush there.

Don't press too heavily on freshly loaded roller. As roller

becomes drier, gradually increase pressure. With a little practice you will get the proper pressure. For smoothest finish, avoid rolling too rapidly, especially with enamel.

If slight stipple is not desired (or if bubbles develop) go over lightly with tip of brush while paint is still fresh.

CLEAN EQUIPMENT thoroughly with appropriate thinner. Work paint out of roller with Roller Scraper (Picture 50), or by running over newspapers. Wash roller and tray with thinner. Wipe.

TO LEAVE OVERNIGHT (when using oil-base finish), scrape roller to remove excess paint, remove from handle, and submerge in thinner—tall fruit jar or can is suitable. Clean tray as any paint left there may come off in fresh paint later. When ready to paint again scrape roller and roll over newspapers. If using water-thinned paint, scrape, wash roller; don't leave in water overnight.

SPRAYING. Spray painting has many advantages. Does most jobs in $\frac{1}{4}$ to $\frac{1}{10}$ the time for brushing. Forces paint into most surface openings and irregularities. Leaves no brush marks. Permits more continuous painting. Especially suitable for large areas such as exteriors of houses, barns, other buildings; automobiles, etc. Ideal also for irregular objects such as radiators, wicker furniture and rough surfaces such as stucco, concrete, brick—all difficult to cover with a brush. Time and labor saved on one or two jobs may pay for sprayer. Has many uses.

BASIC SPRAYING OUTFIT consists of spray gun, compressor motor and hose. Spray gun may be *Internal-Mix* or *External-Mix* type. Internal-mix gun mixes fluid and air inside spray head—for slow drying finishes such as paint, varnish, enamel. External-mix gun is for fast-drying lacquer, shellac.

Either internal- or external-mix guns may be *Bleeder* or *Non-Bleeder*. Use bleeder type where gun is connected to compressor without tank. It passes or "bleeds" air continuously to prevent building up pressure. Trigger controls fluid only.

With tank and pressure switch non-bleeder gun should be used. Trigger controls flow of both air and material at once. (Wards combination guns quickly adjust from one type to other.)

Three types of spray head vary pattern or angle: 1) standard slotted head sprays paint in flat fan-like pattern suitable for most jobs; 2) round head sprays round pattern, useful for spot spraying, small articles, stencil work; 3) angle head sprays ceiling or floor without tilting gun. (Excessive tilting with cup may interrupt paint feed; cause sputtering. However, with auxiliary paint tank gun can be held at any angle.)

SELECTING OUTFIT. A sprayer is rated by "air displacement"—cu. ft. it can supply per minute. However, due to friction, heat loss, etc. not all air is used. The cu. ft. of air per minute actually available is called "air delivery." The greater the air delivery at a given working pressure, the larger output spray gun you can use and the faster you can spray, within certain limits.

Size depends upon jobs to be done and how continuously sprayer will be used. A diaphragm or piston type compressor with $\frac{1}{4}$ - to $\frac{1}{2}$ -HP motor and developing from 25 to 35 lbs. pressure is adequate for spraying furniture, screens; other household jobs. The $\frac{1}{2}$ -HP is smallest size recommended for painting houses or similar work. A $\frac{1}{2}$ -HP or more is best for painting buildings or for regular or heavy shop use.

When painting large surfaces, frequent stopping to fill gun cup slows job; means frequent trips up and down ladder. An auxiliary paint tank (A, Picture 58) holds paint for up to several hours of work; permits tilting gun. Tank connects to compressor with air hose (B); to gun with air hose (C) and "material" hose (D). Tank may rest on ground or be hooked over ladder rung.

Always strain material to be sprayed. When necessary to thin, proceed cautiously; add thinner a little at a time and stir thoroughly. Test on old board until spraying action is satisfactory. Note and follow instruction with gun for air adjustment, etc.

Spray outdoors on calm days. Keep lawn furniture, automobiles and other objects well away as spraying produces a fine mist that drifts and settles. A breeze will carry this mist some distance. Keep compressor well back from spraying.

Use drop cloths to cover shrubs. Cover building surfaces and objects not to be sprayed. Remove shutters, door knobs and plates, mailboxes, lighting fixtures, etc., or cover with paper

bags or paper sheets sealed with masking tape. Mask windows—cut or fold paper to convenient size and seal along edges with masking tape (Picture 97, Page 18). Line up tape carefully against frame and press edge down firmly for sharp, clean paint edge. When spraying up to windows or other edges that will be painted darker, rough mask with cardboard shield (Picture 51). If surface is dirty or heavily chalked, "working" paint with wall brush, after spraying, often gives better bond.

Spraying is seldom used for house interiors. Elaborate masking is necessary. Paint mist clings to unprotected surfaces; seeps into other rooms. Explosive mixtures may form from oil paints.

Inside spraying is sometimes practical in basements, barns, garages, etc., which require little masking; also in workshops for furniture, etc. Keep windows open. Turn off any heating system fans. Wear a painters' respirator. If paint is oil base turn off pilot lights; don't use switches; don't smoke.

SPRAYING TECHNIQUES and "tricks" are easily mastered. Aim gun directly at surface and move it slowly and steadily in a line parallel to surface, about 8 to 10 in. away. Use a slow wrist motion to keep gun same distance from surface at all times (Picture 52). Pull trigger *after starting* each stroke and release *before stopping* to keep paint from piling up. Gun should be in motion at all times when trigger is held back.

Before starting actual work, test spray on cardboard, or other scrap material. Adjust gun so it fans a pattern 8 to 12 in. long. If center of pattern is too heavy and is not corrected by adjustment, it may be necessary to thin paint slightly. Oddly shaped patterns are usually due to dirty gun. Be sure nozzle is clean. Start on back of house or garage to develop skill.

Spray directly at outside corners, using a horizontal fan pattern (Picture 53) to give corner edge a heavy coat where it is needed. For inside corners, adjust gun head for a vertical fan and spray walls separately, gradually working strokes into corner (Picture 54). Use short horizontal strokes.

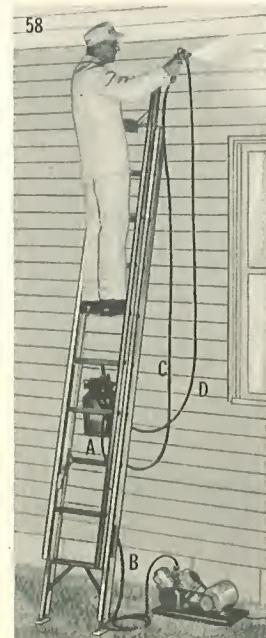
Spray exterior walls with an 8 to 12 in. vertical fan spray. Starting at top, work in horizontal strips about 5 to 8 boards deep. Tilt gun slightly and spray underside board edges first (Picture 55). Hold gun square for flat surfaces.

Clean equipment immediately after use. Empty paint cup or tank of remaining finish and pour in some thinner. Shake, then spray through gun. Remove gun head and wipe thoroughly. Wipe out cup or tank with clean cloth. If using paint tank drain paint hose and run thinner through it.

WIPE-ON APPLICATION. Some preparations such as Spar-Wax, Plastic Finish, Seal-Tone, Tile-Glo, wood grain fillers, waxes and polishes are easily applied by wiping onto surface with cloth pad. Cloth should be soft and clean. Fold into a smooth pad that fits the hand comfortably. Refold frequently. Work a small area at a time.

SPECIAL APPLICATORS. Screen Painter with wool-rug surface is faster than brush; uses less paint; won't clog mesh (see Page 17). For heavy-bodied roof coatings stiff fiber-bristle roof brush is needed. Roof mop is used for melted tar on flat roofs.

DIPPING. New shingles should be dipped in stain. With shingles in bundle, dip one end then other in clean tub or large bucket. (Picture 56). Stain in tub should cover $\frac{2}{3}$ of shingle length. Let soak at least 30 seconds; drain in second container. Many small articles such as handles, knobs, drawer pulls, etc. can be dipped. Attach wire hook or string. Remove bead at bottom with cloth (Picture 57). Hang to dry.





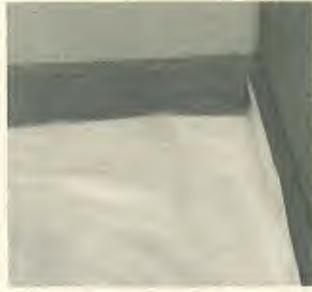
59. Lower Fixture Canopies



60. Remove all hardware.



61. Close Quarter-Round Gaps



62. Cover Floor; Furniture



63. Two Ladders and Plank for Faster, Easier Ceiling Work



64. Edge Woodwork Carefully



65. Finish Walls with Roller



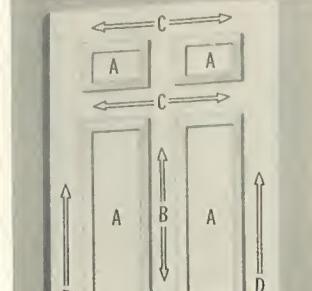
66. Sponge Gives Rough Stipple



67. Texturing with Whisk Broom



68. Begin with Window Closed



72. Paint Doors Systematically



69. Fan Brush for Clean Edges



70. Protect Floor with Shield



71. Open Window to Finish Job

THESE PLANS OF ACTION GIVE BETTER JOBS

Painting should proceed in a logical order. Use this section as a guide. Refer to Wards Quick-Check Charts, Pages 21 and 22.

INTERIOR WALLS AND CEILINGS

Step 1. SELECT FINISH. See Pages 4 and 5.

Step 2. SELECT COLORS. See Page 3.

Step 3. LIST EQUIPMENT NEEDED. You'll need a wall brush or roller applicator plus sash brush for trim.

Ceiling can be painted with single 4- or 5-ft. stepladder, but it is more convenient to use two ladders and extension plank (Picture 63). Permits painting with less ladder shifting; less climbing. Drop cloths protect "built-ins" and large furniture pieces. Protect floors with newspapers or drop cloth.

For surface repairs you need putty knife, fine sandpaper, patching plaster, spackling compound. For oil-base paints have thinner handy to wipe up accidental spatters and clean equipment. Use pail and sponge for washing. Rubber gloves will protect hands from strong soaps and detergents.

Step 4. CLEAR ROOM FOR ACTION. Give yourself room to work. Remove as much furniture as feasible. Take down curtains, drapes, shades, venetian blinds, mirrors, pictures. Remove screws and nails from wall. Roll up rugs; if possible, move out of room. Otherwise, wrap with paper or drop cloth and place at end of room.

Move large pieces of furniture to center of room and cover. Cover fireplaces, cupboards, radiators, built-in furniture, if not to be painted with same finish.

Remove wall registers, switch plates, door knobs, lock plates,

cabinet pulls, window locks and handles (Picture 60) you don't want to paint. Loosen canopies of light fixtures so you can paint under them (Picture 59).

(Most plastic items can be painted safely with oil-base, rubber-base and water-thinned paints. Some, however, are damaged by lacquer solvents and paint removers.)

Step 5. MAKE GENERAL REPAIRS. Fix doors and windows that stick or sag. Worn paint and scratches on jamb usually indicate where door binds. If there are gaps between quarter-round and floor or baseboard, pry quarter-round loose with chisel or pinch-bar, remove old nails and renail tightly. Drive nails at 45° (Picture 61), set and putty.

Step 6. CLEAN SURFACES. Use sponge on smooth surfaces; brush for rough. Work from top, down—washing ceiling first, then walls and woodwork.

Step 7. PREPARE SURFACES. See Pages 8-11.

Step 8. APPLY PAINT. Have all equipment handy. Ventilation is necessary but avoid drafts which dry paint too fast. Lay papers or drop cloth flush with baseboard (Picture 62).

Paint ceiling first. Start in a corner and paint across shortest room dimension in 2- to 3-ft. strips. Usually easier to work from left to right. Start all strips at same wall; paint in same direction (Picture 63). Work toward wet edge of previous strip to avoid lap marks. Complete each strip before paint sets at starting end. Do not stop until ceiling is finished.

Return to same "starting corner" to begin walls. Paint in 2- to 3-ft. vertical strips from ceiling or molding to baseboard. Paint until reaching corner or edge to avoid lap marks. If using roller, paint in corners and around woodwork (Picture 64) with a small brush first; then do walls (Picture 65).

Apply texture paints with short-bristle 4-in. wall brush or stipple roller. Apply no thicker than necessary for desired texture. Experiment on scrap material.

Apply texture paint in small areas at a time so texturing can be done before finish hardens. Textures are produced in several ways. A swirling pattern is made by stroking with dry paint brush in small circles. For a plain stipple use stipple roller. Pressing sponge into paint produces a coarse stipple (Picture 66). Effect in Picture 67 is obtained with whisk broom.

Step 9. FINISH WOODWORK. Do last unless finishing with same paint as walls. Enamel molding slowly and carefully with sash brush to avoid daubing ceiling or wall. Fan out brush with slight pressure to "cut" clean, sharp edges (Picture 69). At baseboard use shield to protect floor (Picture 70).

Begin double-hung windows with cross members (A, Picture 68) then paint top and side members (B). Raise lower window and lower upper window (Picture 71) so parts (C) can be painted. After painting sash, paint inside of frames then faces and edges. Work from top, down. Leave windows open slightly until dry.

When painting doorway, first paint frame; then door, beginning with top, back and front edges. Then paint moldings and panels of top portion (A, Picture 72); then surrounding area (C). Follow by painting next lower panels (A); then surrounding area (B), (C) and (D), and so on.

RADIATORS, REGISTERS, PIPES

Oil-base flat paint or enamel transmit heat better than gold or silver color finishes. Clean radiator before painting. Keep heat off until paint dries. Apply 1 or 2 coats; use 1½ or 2-in. long-handle sash brush. Small radiators may be taken outside and sprayed. Wall and baseboard registers usually painted to match. Paint floor registers with Floor Enamel or Decorative Enamel. Pipes along wall or ceiling are less noticeable when painted to match background. (New registers, radiators usually come prime-coated.)

HOW TO FINISH WOOD

Methods are similar for most wood. See Page 9 for general preparations. Work systematically with furniture—consider legs, sides, top, etc. separate operations. If possible, remove drawers, shelves

—finish separately. Remove handles and other hardware.

Chairs, tables, many other articles are finished more easily by turning upside down and finishing legs and underparts first.

STAINING. Mahogany, walnut, oak and maple stains will darken wood. For light effects use blond and gray stains or a white "stain" made by reducing Enamel Undercoat with paint thinner. Colored oil stain can be made by adding a small amount of a Ward Deep Tone Flat Finish to Paint and Varnish Thinner.

Brush stain on generously and evenly. Allow to penetrate then wipe off excess with soft cloth, wiping with the grain, for medium tone. Depth of tone is controlled by time stain is allowed to penetrate. For light tone wipe sooner; for deeper tone delay wiping. Second coat of stain makes darker. Experiment on scrap of similar wood or on unexposed surface.

BLEACHING. Previously stained or naturally dark woods such as mahogany, walnut, birch, maple, oak, etc. require bleaching when a blond or light natural finish is desired. Bleaching is done on bare wood only. Bleaches can be made by adding Oxalic Acid or Chlorinated Lime to hot water. Or use Peroxide of Hydrogen (standard 30% preparation). Apply with old brush.

After bleach dries, if still too dark, bleach again. Wash with clear water and neutralize with vinegar. When dry, sand grain smooth. (Excessive sanding may wear through bleached surface.)

ENAMEL OVER NEW WOOD. Sand smooth. Apply Enamel Undercoat. If wood is very porous and absorbs most of undercoat, apply second coat. Allow 12 to 24 hours to dry; then apply 1 or 2 enamel coats.

Use only Floor Enamel on floors. Thin first coat with 1 pint of thinner to gallon. When dry, fill cracks with Crack Filler—mixed with a little enamel. Work into cracks with putty knife. Sand cracks smooth. Apply second enamel coat without thinning.

ENAMEL OVER ENAMEL. Remove wax and polish with wax remover or paint thinner. If finish is glossy or checked, use Excel-Prep. Apply 1 or 2 coats of enamel. Two coats, carefully "flowed" on, will give better service than 1 heavy coat.

ENAMEL OR FLAT PAINT OVER VARNISH. Remove polish and wax. If old finish contains mahogany or walnut stain, apply Koverstain to prevent bleeding. Apply 1 or 2 coats of finish.

FLAT PAINT OVER NEW WOODWORK. Use only oil-base or rubber-base. Apply 1 or 2 finish coats.

VARNISH OVER NEW WOOD. First stain, if desired. If open-grained wood, fill (see Page 9). Finish with 2 or 3 coats of Mar-proof or Pale-Trim Varnish (Spar Varnish if exposed to moisture). Thin first coat as directed on label. When dry, sand lightly and apply second varnish coat without thinning.

VARNISH OVER VARNISH. To renew a varnished surface, first cut gloss and "condition" surface with Excel-Prep. Next apply 1 or 2 coats of varnish. Thin first, following label. When dry lightly sand; wipe up dust with damp cloth and apply second coat without thinning. If applying only 1 coat, do not thin. (Varnish is never applied over paint.) To change painted finish to clear, first remove paint (see Page 9).

COLOR VARNISH OVER VARNISH. Primarily for low cost or temporary jobs to help hide discolored, worn spots. Color varnish both stains and varnishes. Darkens surfaces but will not hide grain. First apply Excel-Prep to cut gloss. Then touch up badly worn spots with 8 parts color varnish to 1 part thinner. When dry, lightly sand. Give entire surface unthinned finish coat. If old finish is badly worn or discolored you can hide it with opaque, buff Color Varnish Undercoat. Apply 2 coats and follow with 2 coats of Color Varnish.

NATURAL WOOD FINISHES. Be sure wood is clean and sanded smooth. If wood is open-grained apply filler (see Page 9).

For very clear, durable finish with high gloss, apply 2 coats of Wards Pale-Trim Varnish (except for floors). Plastic Finish also gives high gloss; for any wood surface. Wipe on 3 or more coats with cloth or brush after filling. Dry each overnight.

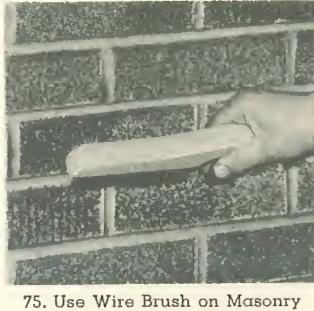
Seal-Tone and Spar-Wax give floors, furniture or woodwork a satin-like luster. After filling open-grained wood, apply liberal coat of Seal-Tone with clean, dry cloth. Allow to penetrate for (Continued on Page 16.)



73. Brush Dirt from Corners



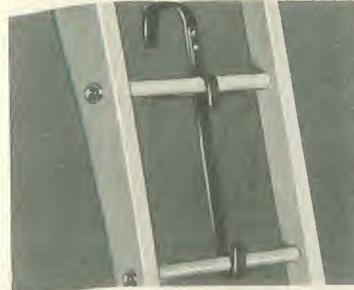
74. Scrape off Loose Paint



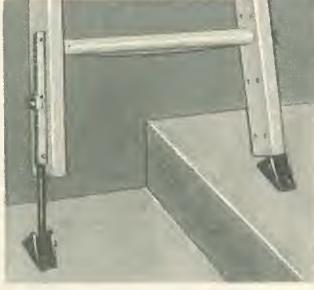
75. Use Wire Brush on Masonry



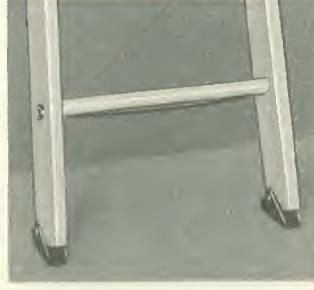
76. Ladder Must Reach Peaks



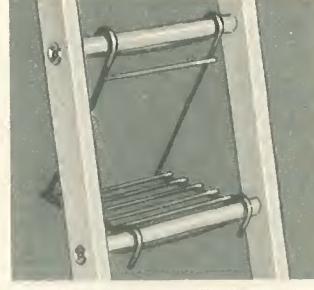
77. Hook for Suspending Ladder



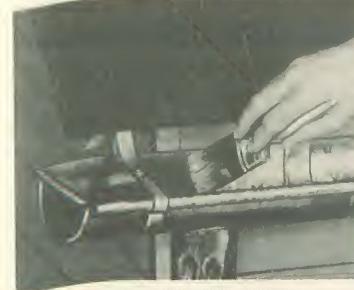
78. Legs to Keep Ladder Level



79. Shoes Hold More Firmly



80. Hook-On Step Adds Comfort



81. Paint Inside of Gutters



82. Work Above the Ladder



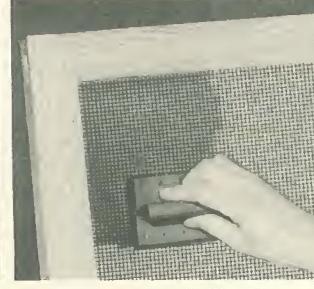
83. Painting an Adjoining Wall



84. Hang Bucket from Wire Hook



85. Place Ladder at Safe Angle



86. Applicator Won't Clog Screens



87. Spray Screens Outdoors



88. Spray Fence at an Angle

THESE PLANS OF ACTION GIVE BETTER JOBS

(Continued from Page 15.)

about 5 minutes and wipe off excess with another cloth. Let dry for 2 to 3 hours and rub lightly with fine steel wool. Wipe off; apply another coat of Seal-Tone; when dry rub with steel wool again. Next, apply Spar-Wax with damp cloth. Spread thinly over small area at a time. Wipe off excess immediately and buff to sheen. After 2 or 3 hours second coat may be applied. Occasional re-coating with Spar-Wax enriches and strengthens.

WAX FINISHES. Use Seal-Tone and Spar-Wax over bare or stained wood. Apply as above for "Natural Wood Finishes."

COLOR-TINT FINISH FOR KNOTTY PINE. Tints pine any color without hiding grain or knots. Apply to bare wood only. Smooth and clean surface by sanding with grain. Thin Enamel Undercoat, 1 pint of paint thinner per gallon. Then tint to desired color with Colors-in-Oil. Mix thoroughly and apply with brush. Allow to

penetrate for about 15 minutes then wipe off excess with soft cloth, leaving color in low spots and grain. Work small area at a time so wiping can be done before paint dries.

Allow to dry overnight, then apply 1 or 2 coats of Pale Trim Varnish, for glossy surface. For soft-luster, apply Seal-Tone and Spar-Wax instead of varnish.

BLOND FINISHES. Begin with bare wood. If necessary bleach to uniformly light color (Page 15). Apply coat of Blond Penetrating Oil Stain or, for white graining, make a delicate white "stain" with Enamel Undercoat and paint thinner. Wipe and allow to dry. For open-grained wood, color Paste Wood Filler with stain and apply in single operation. When dry, put on thin coat of clear Shellac; then Spar-Wax for a soft-sheen finish, or 1 to 2 coats of Pale Trim Varnish for glossy finish.

RUBBED VARNISH FURNITURE FINISH. When final varnish coat

is hard rub with powdered pumice stone (FF grade) and water or light machine oil on felt pad. If using water, soak pad and surface. If using oil, soak pad only. Dip wet pad into pumice and rub surface with grain—using long strokes of even pressure. Rub in one place only until gloss has been cut. If using water, keep work wet and wash pad occasionally in clean water. After rubbing with oil, wipe surface with rags and thinner.

EXTERIOR WALLS AND TRIM

Steps below apply to houses, barns, sheds, garages, commercial and other buildings.

Step 1. SELECT FINISH. See Pages 4 and 5.

Step 2. SELECT COLOR. See Page 3.

Step 3. ESTIMATE AMOUNT OF PAINT (AND UNDERCOAT). See Page 4. For wood siding decide whether to: remove none of old paint; remove portions and spot prime; or remove all to bare wood.

For best results on unpainted wood, masonry, asbestos shingles or old, badly worn finishes, first apply 1 coat of House Paint Undercoat to seal surface; then 1 or 2 coats of House Paint. For spot priming use undercoat (or house paint thinned slightly with raw linseed oil). If present paint surface is well sealed and in good condition, use 1 or 2 coats of house paint.

If using Wards Stucco, Cement and Brick Paint on bare or porous surface, add $\frac{1}{2}$ gallon of Wards Seal-Tone to each gallon of paint for prime coat. Apply second coat without thinning.

Step 4. LIST EQUIPMENT. You'll need a 4-in. wall brush, a 2- or 3-in. brush for trim and a 1-, $\frac{1}{2}$ - or 2-in. sash brush for tracing windows and other small edges. (If using sprayer omit wall brush.) Use old paint brush for brushing off dust and cobwebs (Picture 73). Use a scraper on wood siding to remove loose, scaling paint (Picture 74). Brush masonry with a stiff wire brush (Picture 75). Include caaking materials, putty or glazing compound; drop cloths to protect bushes, porch roofs, etc. from dripping paint; thinner and rags for cleaning equipment.

Ladders needed depend upon height of house. Most 2-story buildings require an extension ladder to reach gable peaks (Picture 76). Ladder should be capable of extending to within 3 ft. of highest building point. A single-section 10- or 12-ft. ladder will reach highest point of most 1-story buildings.

Magnesium extension ladders cost more, but are easier to handle; weigh about half as much as wood; have greater strength and will last indefinitely (magnesium conducts electricity; keep away from electric wires).

Various ladder accessories add safety and convenience. Ladder Hook (Picture 77) attaches to rungs so ladder can be suspended from roof peak for painting roof, dormer or chimney. Ladder leg (Picture 78) can be used to level ladder on uneven or slanted surface or stairs. Rubber Tread Shoes (Picture 79) prevent ladder legs from slipping; give firmer anchorage on smooth, oily or wet surfaces. Steel Shelf Step (Picture 80) hooks over rungs to provide comfortable standing surface; reduces foot strain.

Step 5. MAKE BUILDING REPAIRS. See Pages 9-11.

Step 6. PREPARE SURFACE. See Pages 9-11.

Step 7. PREPARE PAINT. See Page 6.

Step 8. PAINT WALLS. Wear old, comfortable clothing and shoes including old cap (or painter's cap). Overalls have big pockets for dusting brush, scraper, etc. Take down screens, awnings, mailboxes, other movable items. If convenient, take down shutters (they may be painted in basement or garage on rainy days or at night). Cover outside light fixtures, other immovable items not to be painted, with paper or cloth.

Exterior walls can be painted when temperature is above 50° F and surface is dry. Cool, calm days with low humidity are most comfortable for working and best for drying paint. Avoid windy days when dust and insects will be blown into paint. Don't start too early in the morning as surfaces may be wet with dew or frost. Give sun time to dry them out.

Paint building one side at a time. (See Pages 11-13 for brushing and spraying techniques.) If using same paint on them, trim, gutters and downspouts may be painted along with walls. (Be sure to paint inside of gutters (Picture 81). Allow at least 48 hours for each coat to dry before applying next coat.

Start painting at highest peak or gable and work down in horizontal strips 5 to 8 boards wide, on wood siding, or 30 to 36 in. wide on other materials. On lower part of building, begin at a corner and paint across to a window, door or corner before stopping. This reduces chance of lap marks. When you go up the ladder carry paint bucket, brush, duster. First dust surface.

It is easier to paint above ladder than to side or between rungs. Stand on 4th or 5th rung from top, and suspend paint bucket at about waist level (Picture 82). As you work down wall, shorten extension ladder to maintain about same painting position. When painting adjoining inside corner walls it is often more convenient to paint to one side of ladder (Picture 83). It is dangerous to over-reach. Take time to shift ladder.

Hang bucket from ladder rung with S-shape hook formed from piece of heavy wire. Point top of hook away from you (Picture 84) so it won't catch on clothing and upset paint.

Each time you move ladder be sure it is set straight and 4 corners are firm against ground and wall to prevent wobbling. Distance from wall to ladder legs should be $\frac{1}{4}$ to $\frac{1}{3}$ length of ladder. For example, if ladder is 12-ft., bottom should be 3 to 4 ft. from wall (Picture 85).

Step 9. PAINT TRIM. Windows, doors and other building trim is painted last unless using same paint as for walls. Be sure wall paint is dry before applying trim colors. Brushing techniques for windows and doors given on Page 15.

PORCHES. Ceilings, walls, pillars and railings of open porches are painted with outside house paint. Ceilings often coated with spar varnish for natural finish. Paint porch along with side of house or as a separate operation, as more convenient. Paint ceiling first, then walls, pillars, railings and floors.

SCREEN AND STORM WINDOWS. Steel mesh wire must be painted to prevent rust or corrosion. Use house paint, trim paint or screen enamel. Copper or aluminum screening may be coated with clear spar varnish. Use screen painter (Picture 86), roller applicator, sprayer or brush. Screen painter has flat, carpet material face that paints wire mesh in $\frac{1}{3}$ the time for brush, without clogging mesh. Use sash brush on frame.

If spraying, stand 3 or more screens together in convenient outdoor location (Picture 87) so paint passing through first screen won't be wasted. Remember to paint both sides.

METAL ITEMS. Outside light fixtures, mailboxes, railings and other iron or steel items must be protected. Sand off rust and prime areas with Chromate Metal Primer. Finish with house paint, trim paint or decorative enamel, using a small brush. If natural metal finish is desired, use spar varnish.

FENCES AND POSTS. Wood posts can be protected from rot, moisture and insects below ground level with Penta-Chloro-Phenol Preservative or Creosote Wood Preserver. Do not use creosote-type above ground as stain will bleed through and discolor paint. Apply preservers with brush or by dipping.

Paint fences and posts with house or barn paint, trim paint or White Creosote Paint. Use house paint undercoat to prime new wood before finishing with house or trim paint. Thin first coat of Barn or White Creosote Paint. Apply with brush or sprayer. (Roller Coater excellent for wire mesh fence.) Open fences should be angle-sprayed from each side (Picture 88) so edge and face can be covered in one stroke, with less paint waste.

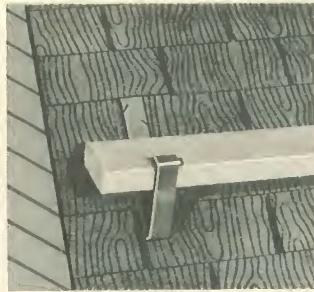
LINOLEUM, TILE, INTERIOR CONCRETE FLOORS

LINOLEUM FLOORS. Spar-Wax gives a satin-luster, non skid finish. Apply with damp cloth, dipped in clean water then wrung dry as possible. Spread wax sparingly over small area at a time and wipe off excess immediately with dry cloth. Before wax dries, buff to full luster with clean, soft cloth. Second coat may be applied after 2 hours.

(Continued on Page 18.)



89. Sturdy Hooks Hold Ladder



90. Brackets Support Plank



91. Roof Cement Seals Flashing



92. Cement Down Loose Shingles



93. Roof Cement Stops Leaks



94. Cover Cracks with Membrane



95. Nail Down Loose Edges



96. Special Roof Coating Brush



97. Tape; Papers Mask Window



98. Mask Wall for 2-Color Job



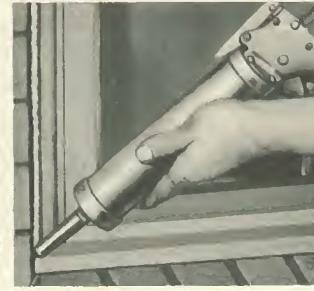
99. Tape Leaves Sharp Line



100. Use Tape for Even Stripes



101. Block for Easier Sanding



102. Caulking Gun is Fast, Neat



103. Press Caulking Tape in Crack



104. Making Smooth Putty Bevel

THESE PLANS OF ACTION GIVE BETTER JOBS

(Continued from Page 17.) For more glossy finish use Super Plastic Finish. Provides a tough, scuff-resistant surface. Apply liberally with brush or clean, lint-free cloth. Will dry hard in 2 to 3 hours. *Do not use on asphalt, vinyl or rubber tile floors.*

ASPHALT, VINYL AND RUBBER TILE FLOORS. Tile-Glo is special preparation for these floors. Dries to bright, non-skid finish without rubbing. Apply Tile-Glo by spreading on generously with saturated sponge, cloth or brush. Spread evenly without retouching areas that have started to dry. Second coat may be applied after whiteness disappears.

PAINTING CONCRETE FLOORS. Floors should age at least 2 months. Etch with Wards Floor-Etcher or muriatic acid before painting. Neutralizes alkalies; paint adheres better.

Apply etcher with paint brush and allow to remain on floor

until bubbling stops. Then, before it dries, flush off thoroughly with clear water. Work large floors in sections. Wear rubber gloves and footwear to protect hands and feet. If etcher is spilled on skin, wash off immediately. When floor dries, apply Rubber-Base Floor Enamel with 4-in. brush, using minimum of brushing. Thin first coat with $\frac{1}{4}$ pint of special Rubber-Base Thinner to quart. Apply second coat unthinned.

REPAINTING CONCRETE FLOORS. Use either Rubber-Base Floor Enamel or Super Floor Enamel (oil-base). Apply a coat to worn spots and, when dry, apply 1 or 2 coats to entire floor. Give rubber-base extra time to dry between coats.

PROTECTING NATURAL-COLOR CONCRETE FLOORS. Tile-Glo is excellent for protecting interior concrete floors (especially colored concrete) you do not wish to paint. Checks "dusting"

often occurring from bare concrete. Apply as for tile floors (above).

PORCH AND DECK FLOORS; OUTSIDE STAIRS

Protect from weather; traffic. Use Porch and Deck Paint on wood, metal or brick; Rubber-Base Floor Enamel on concrete.

Repair old wood surfaces before painting. Replace broken or rotted boards on stairs and porches. Hammer in loose nails. Spot prime worn areas; also new wood used in repairs. For priming, thin paint with $\frac{1}{4}$ pint of thinner to gallon.

First complete coat should be thinned as for priming. When first coat dries, fill nail holes and cracks with Crack Filler and apply second paint coat unthinned.

SURFACING AND REPAIRING ROOFS

When working on a pitched roof, be careful. Wear rubber or soft-soled shoes to prevent slipping; also to protect roof surface. A ladder hung from roof ridge with ladder hooks (Picture 89) or plank supported by brackets nailed under shingles (Picture 90) gives safer footing.

LOCATING AND REPAIRING LEAKS. Usually found more easily from attic. If raining, trace along wet or discolored rafters to where water is coming through. In sufficiently dark attic, daylight may be seen through direct leak. If you locate hole stick a piece of wire through opening so you can find it outside. If you can't find hole, you can at least determine its approximate location. When you can't get to underside of roof, examine outside. Look for cracks; split, loose or rotted shingles; nails that are rusted or loose. On metal roofs, look for rusted areas. Roll roofing leaks are usually along seams.

Leaks may occur around chimney, plumbing stacks and dormer flashings when old cement has dried out and cracked. Re-seal with Plastic Roof Cement (Picture 91). Replace split or torn shingles. Asphalt shingles that have bent up from wind or other causes can often be kept down by applying a little roof cement under shingle with putty knife (Picture 92) and pressing down.

Cracks, holes and seams in roll roofing can be tightly sealed with Roof Patching Membrane and Plastic Roof Cement or Asphalt Roof and Foundation Coating. First, trowel a coating of cement or brush a thick layer of roof coating over crack and surrounding area (Picture 93). Then imbed membrane patch into this coating. Finally, apply a layer of cement or coating over membrane (Picture 94). Use same method to repair holes in rain gutters or metal roof. Fix bulges in roll roofing by slitting center of bulge and cutting out thin strip of material. Cement or nail down edges (Picture 95) using galvanized, aluminum or copper roofing nails; cover crack with membrane and cement as above.

COATING COMPOSITION ROLL ROOFING. If worn dry or leaky it should be completely coated. Sweep off loose granules, other debris. If roof leaks, first apply a coat of Asphalt Roof and Foundation Coating to restore asphalt content. Use a large wall brush or roof brush. When thoroughly dry, seal holes and cracks with Plastic Roof Cement and Roof Patching Membrane. Allow foundation coating a few weeks to age, then finish job with coat of Asbestos Roof Coating. This material contains long fiber asbestos with durable asphalt. As it is thicker than paint, apply with a fiber bristle roof brush (Picture 96).

If roof is worn and dry but not leaking, finish in one of three ways: 1) Asbestos Roof Coating will give low-cost durable black finish. Apply 1 or 2 coats using roof brush. 2) Asphalt Aluminum Paint will give a bright, silvery finish that reflects heat; insulates against heat and cold. When applied, the aluminum floats to surface forming a metallic film that protects paint base from weather and heat. Apply with brush or sprayer. 3) Metal and Composition Roof Paint may be used if a color is desired. Apply with brush or spray. Thin first coat with 1 quart of paint thinner or turpentine to gallon. Apply second coat unthinned.

COATING METAL ROOFS. Clean off grease, oil and other foreign matter. Scrape off loose, scaling rust and apply coat of Chromate Metal Primer. Finish with Asphalt Aluminum Paint for bright silvery finish; Metal and Composition Roof Paint when color is

desired or Asphalt Roof and Foundation Coating for low-cost, black finish. Or, Asbestos Roof Coating may be used.

WOOD SHINGLE ROOFS. Use Shingle Stain on new shingles. When badly dried out, paint old shingles with Shingle Paint.

USEFUL PREPARATION METHODS

MASKING. Masking makes many jobs easier. Protects surfaces not to be painted. Mask with $\frac{3}{4}$ - or 1-in. adhesive masking tape. Use tape alone when brush painting. If spraying use papers with tape along edges to cover larger surface. Picture 97 shows proper masking to spray over window sash.

For a sharp dividing line between two wall colors, paint upper wall first and extend paint slightly below level where bottom color will start. After paint dries apply masking tape. Press firmly against wall. Then paint lower wall, brushing along tape with trim brush (Picture 98). Remove tape (Picture 99) after paint has "set" but before dry to prevent pulling paint off.

For accurate stripes, apply 2 pieces of masking tape, separated exact distance of stripe width desired. Paint between with small brush (Picture 100). When "set," carefully lift off tape. Use 3 lengths of tape for 2 stripes.

SANDING. Many home sanding jobs are done best by hand or with a small portable electric sander.

Coarse sandpaper grades like No. 1½, No. 1 and No. ½ have large grits with plenty of "bite" for initial sanding; to smooth off ridges in wood, or remove heavy rust or old paint. Finish off with medium paper like No. 1/0 or 2/0 followed by a fine paper like No. 4/0, 5/0 or 6/0. Very-fine paper like 8/0 gives extra-smooth finish.

When hand sanding use block; for easier work, more uniform finish. Suitable block can be bought, or formed from a piece of wood, 4 to 4½ in. long, about 3 in. wide and 1½ to 2 in. high. Wrap sandpaper around block and hold with fingers (Picture 101) or tack to sides.

To sand flat surface use 12- to 20-in. strokes, applying uniform pressure over entire length of stroke. Overlap strokes slightly as work progresses. Finish-sand on wood *with* grain to avoid scratches. Do not extend block more than 1 inch over squared edge, to avoid rounding-off. For curved or irregular surfaces, back paper with felt or rubber pad (or use steel wool).

Small portable electric sanders are excellent for flat surfaces. Follow same general procedure as for hand sanding.

CALKING. An important step in preparing exteriors for painting. Calking fills and seals cracks, joints and crevices to keep out dirt, wind, moisture, insects; reduce heat loss and drafts.

For calking gun (Picture 102), use gun-grade compound, bulk or cartridge. Calking may be done with putty knife, using knife-grade compound. Calking compound in tubes with tip like calking gun is convenient. Calking Tape is pressed into crack or joint with finger tips (Picture 103). Calk after first coat of paint; then paint over with finish coats.

PUTTYING. Linseed Oil Putty or Glazing Compound seals window glass in sash, making edges water- and draft-tight. Use also to cover nail heads, holes and cracks in woodwork or siding. When preparing for painting scrape off any loose, cracked putty around windows and re-putty.

Putty after priming coat and paint over with finish coat. For 1-coat job, spot prime areas to be puttied.

When removing broken window glass wear gloves. Work slowly. Brush and scrape old putty and dirt from sash grooves. Spread 1/16-in. coat of putty in sash grooves around frame. Insert glass. Press gently around edges into putty. With screwdriver end or chisel edge *carefully* drive glazier's points.

Finally, go around sash with soft, pliable putty. (If too stiff, add a little linseed oil.) Take small pieces and roll between palms of hands forming pencil-like rolls and lay along edge of glass. Press putty knife gently but firmly on putty and draw slowly along sash. Hold knife at angle to form a smooth bevel (Picture 104). Cut off excess putty that squeezes out. Fill any gaps or holes. Nailholes and dents are quickly filled with bit of putty smoothed off with putty knife or thumb.

AUTOMOBILES, BOATS, OTHER PROJECTS

REFINISHING AUTOMOBILES. If possible work in garage where car is protected from hot sun. (Don't apply paint to hot surface.) Sprinkle garage floor to settle dust. If spraying, be sure garage is well ventilated. Wear painter's respirator.

PREPARATIONS. Wash car and take off headlight rims, hub caps, license plates, hood ornament, other chromium accessories. Repair body dents, crinkled or torn fenders, other damage. Body solder is handy for filling holes, small creases and pit marks. Apply and level off with putty knife, then sand smooth.

Rust develops along fender edges; bottom and sides of doors; around windows; along lower body and inside rain gutters. Even if you don't see rust, watch for tell-tale "blisters" in old finish. Paint will not stick to rust, so remove by scraping and sanding until bright body metal shows. Use point of old knife to scrape rust out of cracks and seams. Use No. 100 sandpaper for hand sanding or No. 80 grit on sanding machine.

After sanding rust spots clean car with fine steel wool dipped in paint thinner to remove road grime, wax, etc. Then rub with fine "Wet and Dry" sandpaper. Keep paper and surface wet with water. Finally rinse car with clear water and wipe dry, preferably with a chamois. Let cracks dry thoroughly.

If paint will be sprayed, mask radiator grill, windows and brightwork with masking tape and newspapers.

PAINTING. First apply Auto Enamel Undercoat to all bare metal. When dry, rub lightly with fine sandpaper or steel wool. Thin first finish coat with $\frac{1}{4}$ pint thinner to 1 quart of enamel (for spraying, $\frac{1}{2}$ pint thinner to quart). When dry, sand lightly and apply second coat without thinning.

Apply Auto and Truck Enamel with brush or spray. Use 2-in. enamel brush—flowing enamel on freely and evenly with short light strokes. If enamel sags on vertical surfaces it is applied too thickly or old finish is too glossy and needs more sanding.

Divide painting into convenient sections. Complete hood, then a fender, etc. Begin and end each time at joints. On top, apply paint back and forth in strips across width rather than painting half of top lengthwise; allows joining wet edges before paint sets—less chance of laps.

A two-color finish takes more time. Use masking tape to form sharp line where colors meet. Prepare entire car, then apply upper color first. Allow 48 hours for thorough drying. Then carefully place masking tape and paint lower part.

Remove old finish from wood station wagon bodies that are badly weathered—use paint and varnish remover. Stain to desired shade with oil stain, then finish with 3 coats of Spar Varnish. Thin first coat with $\frac{1}{2}$ pint of thinner to 1 quart of varnish. Apply second and third coats unthinned.

FINISHING BOATS. If painting hull, boat must be removed from water. Allow plenty of time to dry out.

PREPARATIONS. If old varnish or paint is badly cracked or peeling, remove with Paint and Varnish Remover. If old finish is sound, rub down with sandpaper to cut gloss. Wash off grease, oil and wax with steel wool dipped in turpentine or thinner. Take off removable hardware you don't want painted.

FINISHING HULL. Scrape off mussels, barnacles, weeds. Fill leaks, cracks and dents with seam putty or calking compound.

Refinish varnished hulls with 2 coats of Marine Spar Varnish. Thin first coat using 1 pint thinner to 1 gallon of varnish. When dry sand off gloss and apply second coat without thinning. Un-

finished wood needs 3 varnish coats. Thin first coat using 1 quart thinner to 1 gallon varnish. Apply second and third coats without thinning—sanding lightly between coats.

To paint hull use either Deck and Hull Paint or Boat and Canoe Paint. After preparing hull, spot prime worn and bare spots with thinned paint, adding 1 part thinner to 8 parts paint. When dry, apply first complete coat, thinned as for priming. Sand and apply 1 or 2 finish coats. Use Boat and Canoe Paint at can consistency; Deck and Hull Paint may be thinned slightly.

PAINTING BOTTOM. In waters where marine growths foul bottom, apply 2 coats of Anti-Fouling Bottom Paint. Allow 3 hours for each coat to dry. Brush paint in thoroughly.

FINISHING DECKS. For varnish finish use Marine Spar Varnish on all but walking surfaces. Apply as above. For walking surfaces use Super Spar Varnish. Paint decks with Deck and Hull Paint.

FINISHING CABINS. For varnish finish, inside or out, use Marine Spar Varnish. To paint cabin exterior use Boat and Canoe Paint. Interior Cabin Enamel gives a durable, washable finish to inside walls, ceilings and woodwork. For contrasting colors on wood or metal parts use Trim and Signal Enamel.

PAINTING ENGINE. Allow to cool, then clean off with gasoline or kerosene. Rust spots and old chipped paint should be sanded smooth and clean. Apply 1 or 2 coats of Marine Engine Enamel.

VARIOUS PAINTING JOBS. Paint protects equipment against rust; deterioration. It lasts longer; gives better service.

FARM IMPLEMENTS; TRACTORS; WAGONS. Use Wagon and Implement Paint on metal and wood for a tough, weather-resistant finish. Scrape or sand rust from metal surfaces and clean with steel wool and turpentine or thinner. Spot prime bare metal with Chromate Metal Primer or Auto Enamel Undercoat and finish with 1 or 2 coats of Wagon and Implement Paint.

WATER TANKS. Remove rust from metal tank and spot prime rusted or bare spots with Chromate Primer. If unpainted, apply primer to entire tank. For finish coats use Super Aluminum Paint, House Paint, Barn Paint or Metal and Composition Roof Paint. Asphalt Roof and Foundation Coating excellent for protecting underground tanks and pipes from moisture; also for coating inside of metal or concrete stock tanks, septic tanks, swimming pools, water troughs. Imparts no odor or taste; non-toxic.

REFRIGERATORS. While you cannot duplicate original baked enamel finish, you can give old refrigerator a fresh, bright appearance with Porcelain-White Enamel or Decorative Enamel. Wash off grease and stains. Apply 1 or 2 coats of enamel. Sand lightly between coats with very fine sandpaper.

FURNACES; STOVES. Require finishes that withstand extreme heat. Be sure fires are out and surface is cool before painting. Clean off dirt and grease; rust spots. Apply coat of Stovepipe Enamel or Red Hot Aluminum Paint. These finishes also suitable for boilers, stovepipe, grates; steam and water pipes.

HOUSE TRAILERS. Finish outside of metal or Masonite trailer with coat of Auto Enamel Undercoat followed by 1 or 2 coats of Auto and Truck Enamel, Super Decorative Enamel or Trim and Shutter Paint. Wood trailers may be painted or, for natural finish, stained and finished with Spar Varnish.

BICYCLES. Clean thoroughly and sand off rust. Prime bare metal with Auto Enamel Undercoat or Chromate Metal Primer. Finish with 1 or 2 coats of Auto and Truck Enamel or Super Decorative Enamel. Use masking tape for stripes; two colors.

HOW TO USE WARDS QUICK-CHECK PAINTING GUIDE

Charts on Pages 21 and 22 show in convenient, condensed form what you need for each type of job. Use guide while planning work; check it again just before starting. It may save you time and inconvenience later; result in a better job.

Read chart from left to right—following guide brackets. In first column, headed "Location," find part of house; type of building or article you want to finish. Second column lists appropriate

paints or other finishes. In third column find specific surfaces you want to finish. Second column shows which finishes are suitable for each surface. From the fourth column select brushes or other applicators. Then go on across page to right, selecting other tools, preparation materials and equipment needed. Make a list of those you do not have and order along with your paint or varnish from Wards Catalog, Catalog Order Office or Retail Store.

LOCATION	FINISH	SURFACE	APPLICATORS	ACCESSORIES, COMPANION FINISHES, TOOLS, ETC., USUALLY REQUIRED
INTERIOR WALLS AND CEILINGS	Oil base Flat Wall Paint	Living, dining, bedroom— walls & ceilings	4-in. wall brush or roller coater plus 1 or more 2-in. varnish brushes for trim, etc.	First coat: For new or worn walls use primer to cover darker color; on wood use undercoat; on stained wood use Koverstain
	Oil base Excel-Glo, Semi-Gloss (satin) enamels	Kitchen, bathroom walls & ceilings;	3- to 3½-in. varnish & enamel brush for wall & ceilings plus one or more 2-in. varnish & enamel brushes for small spaces and trim	Woodwork Enamel: Excel-Glo, Gloss or Semi-Gloss (same or different color); Porcelain White
	Oil base Gloss enamels (include Decorative & Porcelain White)	also wood- work in any room	more 2-in. varnish & enamel brushes for small spaces and trim	—Also, linseed oil or waterless cleaner for hands
	Rubber base flat paints (Excelon & Super Kem-Tone)	Living, dining, bedroom— walls, ceilings, woodwork	4-in. wall brush or roller coater plus one or more 2-in. varnish & enamel brushes for corners, trim, etc.	Patching Plaster and Spachting Compound to fill cracks and holes in plaster before painting
	Water-thinned flat paints (Kem- Tone; Casein)	Living, dining, bedroom— walls & ceilings	4-in. wall brush or 5- or 6-in. kalsomine brush or roller coater plus 1½- or 2-in. varnish & enamel brush for corners, trim	Excel-Prep to prepare enamled surface for repainting; Putty knife; Scraper; Fine sand- paper;
	Texture paints— Excel-Tex rubber base; powder	Living, dining, bedroom— walls & ceilings	4-in. wall brush or roller coater plus 1½- or 2-in. brush; also scraper, sponge, whisk broom or other texturing device	Varnish: Marproof or Spar or Color, for unpainted wood trim
HOUSE EXTERIOR	Water-thinned Cement Paint	Cement & masonry walls & ceilings	4-in. wall brush or 5- or 6-in. kalsomine brush	Use water for clean-up of hands, brushes, etc.
	House Paint	Wood, brick, masonry, concrete, stucco, metal	3- to 4-in wall brush (or for concrete or stucco 4-in semi-Dutch) plus 2-in. trim and 1½- to 2-in. sash brushes. Also, consider sprayer	Masonry Sealer, Leak-Stop or combination
	Shingle Paint	Old wood shingles, on sides or roof	4-in. wall brush plus 1½-, 2-in. sash and trim brushes	House Paint Undercoat for best 2-coat job
FLOORS, STAIRS, PORCHES, DECKS	Shingle Stain	New wood shingles, on sides or roof	Use 4-in. wall brush or dip shingles before applying them. Also, 1½- or 2-in. sash-trim brush	Trim and Shutter Paint for window & door frames, etc.
				Spar-varnish for natural finish doors
				Screen Enamel
				Turpentine or paint thinner to clean up spots, clean brushes, etc. Also, linseed oil or waterless cleaner for hands
				Calking Compound to seal around windows, doors, etc.
				Scrapers; wire brush; blow torch if removing old paint; painting bucket (especially if paint is in 5-gal. size can)
				Chro- mated Metal Primer for bare eaves trough; down spouts; nail heads; flashing; other iron or steel surfaces as first coat
				Extension Ladder (single ladder may do for low house)
				Dropcloth to protect shrubs, lawn
LOCATION	FINISH	SURFACE	APPLICATORS	ACCESSORIES, COMPANION FINISHES, TOOLS, ETC., USUALLY REQUIRED
FLOORS, STAIRS, PORCHES, DECKS	Porch and Deck Paint in colors	New or old wood, brick, concrete or metal; exposed to weather	3- to 4-in. wall brush	On new or re-sanded surface, thin 1st coat with thinner or turpentine
	Spar-Wax— clear satin finish	New, or machine sanded old, interior wood	3½- to 4-in. wall brush or soft, lintless cloth or roller coater	First use Seal-Tone (for 1st application)
	Mar-Proof floor varnish (clear)	New or old interior wood	2- to 3½-in. varnish brush or 4-in. wall brush	On new or re-sanded open-grain woods use Paste Filler
	Color Varnish in colors	Old interior wood	3- to 3½-in. varnish brush or soft, lintless cloth or roller coater	On new or re-sanded surface, thin 1st coat with thinner or turpentine
	Plastic Finish (clear)	New or old interior wood or linoleum	3- to 3½-in. varnish brush or soft, lintless cloth or roller coater	Prime bare metal with Chromate Primer
	Floor Enamel— oil base in colors	New or old interior wood, metal or linoleum	3- to 4-in. wall brush or roller coater	Thin first coat with rubber base thinner
	Floor Enamel— rubber base in colors	New or old interior or exterior concrete	3- to 4-in. wall brush or roller coater	Treat bare concrete with Etcher
				Use rubber base enamel thinner for clean-up
				Patching Cement
				If plan- ning for different colors to meet or for stripes, Masking Tape will save work, give better job. Also fine to protect quarter round at edges of floor

LOCATION	FINISH	SURFACE	APPLICATION	ACCESSORIES, COMPANION FINISHES, TOOLS, ETC., USUALLY REQUIRED						
WOODWORK, FURNITURE, TOYS, SIGNS, APPLIANCES, NOVELTIES, ETC.	FOR COLOR: Decorative Enamel or Porcelain White or Excel-Glo	New or old wood or metal—also, masonite, wallboard, glass, etc. (Note: Results of painting over plastics vary; experiment on small, unexposed surface.)	1- to 3-inch varnish and enamel brush; also, for rounded, irregular, or carved surfaces, an oval sash brush is very useful. (Have separate brushes for each color being used and for clear finish.) Spraying equipment especially suited for enameling these types of surfaces	Undercoat for first coat	Prime bare metal with Chromate Primer	Turpentine or Paint Thinner to clean up spots, clean brushes, etc.	Patchwood Putty Crack Filler Wood Filler Steel Wool Sandpaper	Putty Knife If removing old finish: Paint and Varnish Remover	Masking Tape saves time and gives better job where two colors meet or at juncture with unpainted surface.	
	FOR CLEAR FINISH: Furniture Varnish or Spar Varnish (especially outdoors)			On new or resanded open-grain wood, first use Paste Wood Filler	To change wood color without hiding grain, use Oil Stain first.	Also Linseed Oil or Waterless Cleaner to clean hands				
	Water-Clear Pale Trim Varnish			Seal-Tone to prime	For most natural wood color use Pale Trim or Plastic Finish	Two or more coats of clear finishes advised.	Rubber-Base Thinner	If removing old finish: Paint and Varnish Remover		
	or Spar-Wax									
	or Plastic Finish									

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HOUSE PAINTS OF ENDURING BEAUTY

Whether you want a pure White that stays white, or an appropriate color; whether your house has wood, shingle, brick or concrete siding; whether it be large or small—you will find specially formulated, weather-tested Ward Paints and other finishes to give to it that lasting good appearance, that money-saving protection you desire. Wards policy is to sell top-quality paints for less. Wards does not sell inferior paints—they are too expensive in the long run.





PAINTING PAYS

Painting is dollars-and-cents good business. Factories and warehouses generally have painting schedules, based on a study of the types of paint that protect best longest under their special conditions.

The same method is being used by many farm operators. Protection is doubly important with rising building costs. Tests show that painting adds as much as 16 years to average life of farm buildings.

A long term farm painting protection program should include all structures, fences, gates, tanks, vehicles and implements.

Spraying is economical for many types of commercial properties, especially on farms. A good spraying outfit, with accessories will often pay for itself with labor savings in one painting of barn or house. Yet, it will give years of service.

The labor factor is so large that it does not pay to skimp on paint quality. Wards policy is to sell top quality paints for less, but Wards does not offer inferior paints—they are uneconomical in the long run.

Three convenient ways to buy Ward paint:

1) BY MAIL from Ward House in Chicago, Baltimore, Albany, St. Paul, Kansas City, Denver, Ft. Worth, Portland, Ore. or Oakland. For 50 lbs. specify freight; build your order up; rate for 100 lbs. is usually no more.

2) IN WARD RETAIL STORE you can seek the advice of friendly clerks, see color samples, and secure the merchandise at once.

3) IN WARD CATALOG OFFICE you may save on shipping charges, letter postage, etc., and see color samples as well.

Convenient Terms; get details from Wards Catalog, Retail Store or Catalog Office.

